Honeywell

MAXPRO® Video Management System R310

Commissioning and Installation Guide

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About this Guide

Introducing MAXPRO® VMS R310

MAXPRO® Video Management System R310 (MAXPRO® VMS R310) is an enterprise-class video management and hybrid solution. It enables you to perform various surveillance operations on traditional analog, network and IP based video equipment in the same surveillance network. You can deploy thousands of cameras in number of locations, and add many video devices such as recorders and monitors.

Scope

This guide helps you in:

- Setting up the hardware for the MAXPRO VMS system
- Installing and uninstalling the MAXPRO VMS software
- Commissioning the MAXPRO VMS system
- Verifying the MAXPRO VMS system after the commissioning process
- Upgrading from previous versions of MAXPRO VMS to MAXPRO VMS R310.

Intended Audience

This guide is intended for the field and commissioning engineers of MAXPRO VMS system.

STRUCTURE OF THIS GUIDE

The following table describes the contents of each chapter in this guide.

No	Chapter	Description
1	***Commissioning Plan***	Description of the process involved in commissioning the MAXPRO VMS.
2	***Setting up the Client and the Server Computers***	• Hardware specifications for MAXPRO VMS server and client computers. • Procedures for configuring the monitor display properties. • Steps for installing the serial expander.
3	***Installing the MAXPRO VMS R310 Software***	Procedure for installing MAXPRO VMS R310 software.
4	***Configuring devices and Setting up a Site***	Configure the MAXPRO VMS.
5	***Verifying the Configuration of MAXPRO VMS***	Steps to verify the configuration of MAXPRO VMS.
6	***Upgrading to MAXPRO VMS R310***	Procedures to upgrade from previous versions for MAXPRO VMS to MAXPRO VMS R310.

TYPOGRAPHICAL CONVENTIONS

This guide uses the conventions listed in the following table.

Font	What it represents	Example
Swiss721 BT	Words or characters that you must type. The word “enter” is used if you must type text and then press the Enter or Return key.	Enter the **password**.
	Menu titles and other items you select	Double-click **Open** from the **File** menu.
	Buttons you click to perform actions	Click **Exit** to close the program.
Trebuchet MS	Heading	**Installation**
Swiss721 BT (Bold Italic)	Cross-reference to external source	Refer to the ***System Administrator Guide***.
Swiss721 BT (Italic)	Cross-reference within the guide	See *Installation*.

1

COMMISSIONING PLAN

OVERVIEW

Commissioning is the process of installing, configuring, and setting up the MAXPRO VMS hardware and software. At the end of the commissioning process, the MAXPRO VMS system is equipped for use by operators to perform surveillance operations. The steps in the commissioning process must be performed one after the other for successful deployment of MAXPRO VMS system.

STEPS IN THE COMMISSIONING PROCESS

The process of commissioning consists of the following phases:

- *Setting up the Server and Client Computers*.
- *Installing the MAXPRO VMS R310 Software in the Server and Client Computers*.
- *Configuring the MAXPRO VMS System*.
- *Verifying the Configuration*.

SETTING UP THE SERVER AND CLIENT COMPUTERS

Setting up the server and client computers involve:

- Determining the number of server and client computers at the location and ensuring that they meet the minimum hardware requirements such as processor type and memory size.
- to the computers after ensuring that they meet the hardware requirements. You can connect up to four monitors to each computer. After , configure the monitor display properties.
- Installing the serial expander, if switchers, serial keyboards (Ultrakey), Protocol Interface Translators (PIT), and other serial devices are used at the location.

Note: See the chapter *Setting up the Client and the Server Computers* for information on hardware requirements, how to connect the monitors to the computers, how to configure the display properties, and how to install the serial expander.

INSTALLING THE MAXPRO VMS R310 SOFTWARE IN THE SERVER AND CLIENT COMPUTERS

Installing the software involves:

- Ensuring that the server and client computers meet the minimum software requirements such as operating system and anti virus software.
- Installing the MAXPRO VMS R310 software.

Note: See the chapter *Installing the MAXPRO VMS R310 Software* for information on software requirements and installation instructions for the MAXPRO VMS R310 software.

CONFIGURING THE MAXPRO VMS SYSTEM

In this phase, you need to configure the MAXPRO VMS through the user interface. Before you start configuring, perform the following:

- Determine the number of sites to add in the MAXPRO VMS system. A default site is available in MAXPRO VMS. Typically, a site is a geographical group of cameras or similar cameras and can be used to logically group cameras.
- Determine the number of partitions and event groups to be created for each site. A default global partition is automatically created when you add a site in MAXPRO VMS. Partitions and event groups are used to limit access to cameras and events.
- Ensure that the recorders and other video devices such as cameras and streamers are powered on and connected to the network.
- Determine the IP addresses of the recorders and streamers. The IP addresses are required to add the devices to the MAXPRO VMS system.
- Determine to which site each recorder, camera, monitor, and switcher needs to be associated.
- Determine to which event group and partition each recorder, camera, switcher, and monitor needs to be associated.
- Determine the roles of users for each site. You need to create roles and define privileges for them while configuring the MAXPRO VMS system.
- Determine the number of users for each site. You need to create users and associate them to roles while configuring the MAXPRO VMS system. MAXPRO can also use Windows System users discoverable through Active directory
- Determine which partitions, event groups, client workstations, and joystick controllers (Ultrakey keyboard) each user can access.

Note: See the chapter *Configuring devices and Setting up a Site* for information on how to configure the MAXPRO VMS system.

VERIFYING THE CONFIGURATION

- Verifying the configuration involves checking whether the surveillance operations can be performed using MAXPRO VMS software. Surveillance operations include, viewing the live video, performing the pan, tilt, and zoom on the video, and starting the video recording.

Note: See the chapter *Verifying the Configuration of MAXPRO VMS* for information on how to perform the verification.

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2

SETTING UP THE CLIENT AND THE SERVER COMPUTERS

OVERVIEW

Setting up the server and client computers is the first phase in the commissioning process.

BEFORE YOU BEGIN

Determine the following at the location:

- Number of server and client computers
- Hardware configuration of the computers
- Number of serial devices such as joystick controllers (Ultrakey keyboard), switchers, PITs, and other devices

TASKS TO PERFORM IN THIS PHASE

The following table lists the activities that are performed in this phase.

Tasks	See the section...
Specifications for virtual server solution	*Virtual Machine Specifications*
Ensure that the hardware configuration of the server and client computers meet the minimum specifications.	*Hardware Specifications*
Connect the monitors, keyboard, and mouse to the server and client computers.	*Configuring the Monitor Display Properties*
Configure the monitor display properties.	*Configuring the Monitor Display Properties*.
Install the serial expander in the server to connect serial devices.	*About Serial Expander*

VIRTUAL MACHINE SPECIFICATIONS

If you choose to provide your own virtual server solution for use with Honeywell MAXPRO VMS R310 VMS software, the solution must meet or exceed the specifications listed in the following table.

Specification	Description
Minimum Processors	Speed 3GHz, Sockets 1, Cores per socket 2
Memory	8 GB
Storage	Two separate Disk/LUN datastores on a local SCSI, Fibre Channel or iSCSI Provisioned Thick "Eager-zeroed" preferred. Dedicated Datastore 1 sized 120GB or larger is for the Windows operating system, MAXPRO VMS server software and Microsoft SQL server software. Dedicated Datastore 2 sized 120GB or larger is for the Microsoft SQL Server database files
Networking	One or more active VM Network adapters 1000Mb, Full Duplex (vmxnet 3 preferred)
Video Card	Virtual Machine Video Card set to one display with 128MB total video memory
Operating System	For the VMware session install Windows Server 2008R2 or 2012 Standard Edition R2

Note: You are responsible for the setup of the VMware ESXi host, the Virtual Machine configuration options, operating system software, physical and virtual networking configuration and all other customer IT requirements. Microsoft Windows Server 2008SE R2 SP1 or 2012 Standard Edition must be installed per the Honeywell installation instructions included on the MAXPRO VMS installation DVDs.

Caution: You own the full responsibility for the virtual solution, computer hardware and operating system compatibility. Honeywell is only responsible for the MAXPRO VMS software application and Honeywell-installed subsystem components. VMware ESXi qualification is for the MAXPRO VMS server only. The MAXPRO VMS client is not supported in a virtual environment.

USEFUL TIPS

Here are some of the tips that help in setting up the virtual machine environment.

- MAXPRO VMS includes SQL Server 2012 R2 Express (based on prerequisites) as default and supports SQL Server 2012 R2
- The end customer has to provide, install, and maintain updates to McAfee or Symantec Antivirus Software.
- Turn off the Microsoft automatic updates option.
- Always perform a full system backup prior to applying any of the tested Microsoft hot fixes.
- Follow the VMware ESXi best practices for configuring ESXi hosts and minimize SCSI Reservation delays. To support 64-bit virtual machines, support for hardware virtualization (Intel VT-x) must be enabled on x64 CPUs on the Physical ESXi Host Server. Place the management network and virtual machine networks on different physical network cards. Dedicated Gigabit Ethernet cards for virtual machines, such as Intel PRO 1000 adapters, improve throughput to virtual machines with high network traffic.

HARDWARE SPECIFICATIONS

The MAXPRO VMS server and client computers must meet the minimum hardware specifications. This is necessary for proper and efficient working of the MAXPRO VMS.

There are two types of hardware configurations for the server and client namely, standard and performance. The standard configuration uses the minimum hardware specifications. The performance configuration uses higher hardware specifications for better performance. The performance configuration is also recommended for compatibility with features that are going to be provided in MAXPRO VMS in the near future.

Table 2-1 MAXPRO VMS Server (Standard Spec with Windows 2008 Server R2 64 bit, Windows 2012 up to 5 Clients)

Specification	Description
Processor	Single Intel® Quad Core Xeon E3 1224V3 3.2 GHz
Recommended Operating System	Microsoft Windows® Server 2008 R2 and 2012 32&64 bit
Recommended Computer Type (Server or Workstation)	Server - dual power supply suggested
Recommended System Memory (RAM)	8 GB
DVD Drive (RW (Read Write) is required if workstation is used for exporting recordings)	DVD +/- RW
Disk	Two separate hard drives or two sets of RAID arrays Disk / RAID set 1 utilizes 10K RPM SATA 150GB or 10K-15K RPM SCSI 146GB for Windows operating system, MAXPRO VMS Server Software, and Microsoft SQL Server software. Disk / RAID set 2 utilizes 10K RPM SATA 150GB or 10K-15K RPM SCSI 146GB for MAXPRO VMS database files and Microsoft SQL Server database files. **Note:** If fault tolerance is required, RAID set 1 is RAID 1, 10 or 0+1 and RAID set 2 is RAID 10 or 0 + 1.
Multiple Monitor Card -Display Adapter (Video Resolution)	Display Adapter with Video resolution 1024x768 pixels; 32-bit color or higher.
Serial Ports	Only required if serial device are to be connected - Suggested 8 Port MOXA PCI-e serial RS232
Network Connection	1Gbit/sec or greater

Table 2-2 MAXPRO VMS Server (Performance Spec with Windows 2008 Server R2 64 bit, Windows 2012 up to 10 Clients)

Specification	Description
Processor	Single Intel® 6 Core Xeon E5 2630V2 2.6GHz
Recommended Operating System	Microsoft Windows® Server 2008 R2 and 2012 32&64 bit
Recommended Computer Type (Server or Workstation)	Server - dual power supply suggested
Recommended System Memory (RAM)	16GB
DVD Drive (RW (Read Write) is required if workstation is used for exporting recordings)	DVD +/- RW
Disk	Two separate hard drives or two sets of RAID arrays Disk / RAID set 1 utilizes 10K RPM SATA 150GB or 10K-15K RPM SCSI 146GB for Windows operating system, MAXPRO VMS Server Software, and Microsoft SQL Server software. Disk / RAID set 2 utilizes 10K RPM SATA 150GB or 10K-15K RPM SCSI 146GB for MAXPRO VMS database files and Microsoft SQL Server database files. **Note:** If fault tolerance is required, RAID set 1 is RAID 1, 10 or 0+1 and RAID set 2 is RAID 10 or 0 + 1.
Multiple Monitor Card -Display Adapter (Video Resolution)	Display Adapter with Video resolution 1024x768 pixels; 32-bit color or higher
Serial Ports	Only required if serial device are to be connected - Suggested 8 Port MOXA PCI-e serial RS232
Network Connection	1Gbit/sec or greater.

Table 2-3 MAXPRO VMS Server (Performance Spec with Windows 2008 Server R2 64 bit, Windows 2012 up to 25 Clients)

Specification	Description
Processor	Dual Intel® 6 Core Xeon's E5 2630V2 2.6GHz
Recommended Operating System	Microsoft Windows® Server 2008 R2 and 2012 32&64 bit
Recommended Computer Type (Server or Workstation)	Server - dual power supply suggested
Recommended System Memory (RAM)	16GB
DVD Drive (RW (Read Write) is required if workstation is used for exporting recordings)	DVD +/- RW
Disk	Two separate hard drives or two sets of RAID arrays Disk / RAID set 1 utilizes 10K RPM SATA 150GB or 10K-15K RPM SCSI 146GB for Windows operating system, MAXPRO VMS Server Software, and Microsoft SQL Server software. Disk / RAID set 2 utilizes 10K RPM SATA 150GB or 10K-15K RPM SCSI 146GB for MAXPRO VMS database files and Microsoft SQL Server database files. **Note:** If fault tolerance is required, RAID set 1 is RAID 1, 10 or 0+1 and RAID set 2 is RAID 10 or 0 + 1.
Multiple Monitor Card -Display Adapter (Video Resolution)	Display Adapter with Video resolution 1024x768 pixels; 32-bit color or higher
Serial Ports	Only required if serial device are to be connected - Suggested 8 Port MOXA PCI-e serial RS232
Network Connection	1Gbit/sec or greater.

Table 2-4 MAXPRO VMS Workstation Computer (Standard Spec with Windows 8.1 Professional 32-Bit and 64 bit, Windows 7 64 bit and 32 bit Supports up to 2 monitors)

Specification	Description
Processor	Intel Core i7-4770K, 3.5 GHz
Recommended Operating System	Microsoft Windows® 7 or 8.2 32&64 bit
Recommended Computer Type (Server or Workstation)	Workstation.
Recommended System Memory (RAM)	8GB.
DVD Drive (RW (Read Write) is required if workstation is used for exporting recordings)	DVD +/- RW.
Disk	250GB 7200RPM SATA3
Multiple Monitor Card - Display Adapter (Video Resolution)	NVIDIA Quadro NVS300, 512 MB
Network Connection	1Gbit/sec or greater.

Table 2-5 MAXPRO VMS Workstation Computer (Performance Spec with Windows 8.1 Professional 32-Bit and 64 Bit, Windows 7 64 bit and 32 bit supports up to 4 monitors)

Specification	Description
Processor	Intel Core i7-4770K, 3.5 GHz
Recommended Operating System	Microsoft Windows® 7 or 8.2 32&64 bit
Recommended Computer Type (Server or Workstation)	Workstation.
Recommended System Memory (RAM)	8 GB.
DVD Drive (RW (Read Write) is required if workstation is used for exporting recordings)	DVD +/- RW

Table 2-5 MAXPRO VMS Workstation Computer (Performance Spec with Windows 8.1 Professional 32-Bit and 64 Bit, Windows 7 64 bit and 32 bit supports up to 4 monitors)

Specification	Description
Disk	250GB 7200RPM SATA3
Multiple Monitor Card -Display Adapter (Video Resolution)	NVIDIA Quadro NVS510, 2GB
Network Connection	1Gbit/sec or greater.

Table 2-6 MAXPRO VMS Workstation Computer with Prowatch client (Performance Spec with Windows 8.1 Professional 32-Bit and 64 Bit, Windows 7 64 bit and 32 bit supports up to 2 monitors)

Specification	Description
Processor	Quad Core Intel® Xeon® Processor E5620 (12M Cache, 2.40 GHz, 5.86 GT/s Intel® QPI).
Recommended Operating System	Microsoft Windows® 7 Professional (64-Bit and 32-Bit), Microsoft Windows® 8.1 Professional 32-Bit and 64 Bit Few of the recorders run only on specific operating systems. Before installing the device drivers for the recorders, please refer to the "Operating Systems" sheet in the ***MAXPROVMS_HW_SW_Compatibility_Matrix.xls*** file available on the MAXPRO VMS R310 DVD.
Recommended Computer Type (Server or Workstation)	Workstation.
Recommended System Memory (RAM)	8 GB.
DVD Drive (RW (Read Write) is required if workstation is used for exporting recordings)	DVD-RW drive.
Disk	Single Disk or RAID 0 or 0+1 10K SATA 80GB or 10K to 15K SAS 73GB: Windows Operating System.
Multiple Monitor Card -Display Adapter (Video Resolution)	1 x 256MB PCIe x16 NVIDIA Quadro NVS 285, Dual DVI or Dual VGA or DVI+VGA. This is for a two monitor setup with each monitor requiring 128 MB.
Network Connection	1Gbit/sec or greater.
Video Resolution	1024x768 pixels; 24 bit color or higher.

CONFIGURING THE MONITOR DISPLAY PROPERTIES

The recommended display settings for the monitor are dialog box resolution of 1024 x 768 pixels and color quality of 65K colors non-interlaced. The display settings can be configured from the Windows control panel or from the Windows desktop through the context menu.

To configure the display settings from the context menu in the Windows desktop

1. Right-click the Windows desktop to display the context-menu.
2. Click **Properties**. The **Display Properties** dialog box appears.
3. Click the **Settings** tab.
4. Select the dialog box resolution and color quality.
5. Click **Apply** to save the settings.
6. Click **OK** to close the dialog box.

To configure the display settings from the Windows control panel

1. Go to Windows control panel.

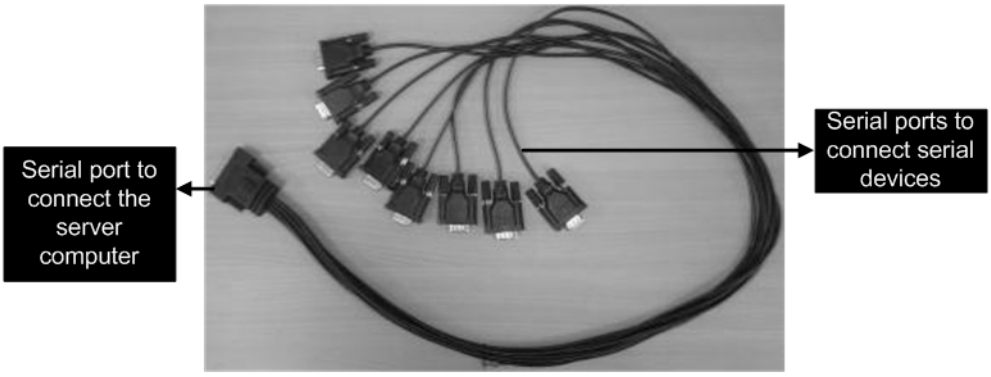
Note: To open the control panel, click **Start** > **Settings** > **Control Panel**.

2. Double-click the **Display** icon.The Display Properties dialog box appears.
3. Click the **Settings** tab.
4. Select the dialog box resolution and color quality.
5. Click **Apply** to save the settings.
6. Click **OK** to close the dialog box.

ABOUT SERIAL EXPANDER

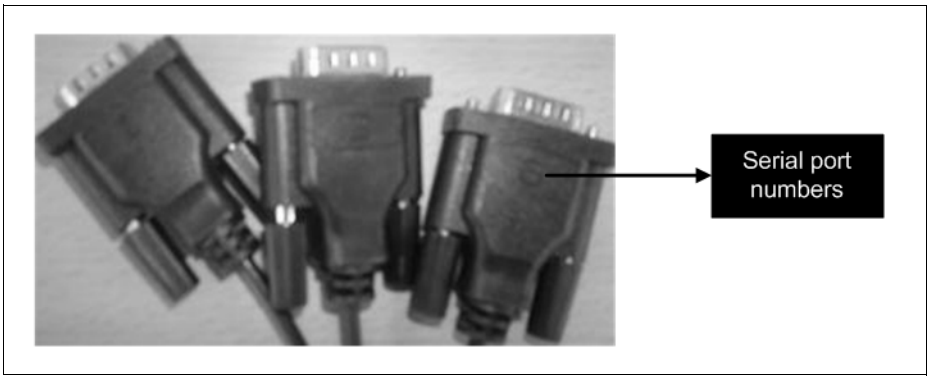
The serial expander cable is used for increasing the number of serial ports in the computer. One end of the serial expander cable connects to a serial port in the computer. The other end of the serial expander cable consists of eight serial ports to which you can connect serial devices. For example, you can install the serial expander in the server to connect serial

devices such as switchers, joystick controllers (Ultrak keyboard), and PITs used at the location. The following figure illustrates a serial expander cable.



Each of the eight serial ports in the serial expander cable is marked with a number. This number is used for identifying the serial port while configuring the settings such as baud rate, data bits, and others using the MAXPRO VMS software.

The following figure illustrates the serial port numbering in the serial expander cable.



ENABLING WINDOWS .NET 3.5

This section describes the procedure to enable .NET 3.5 on Windows 8 and Server 2012 machine with/without internet connection.

Note: This section is not applicable for Windows 7 and Server 2008 machines to enable . NET 3.5.

To enable .NET 3.5 on Windows 8 machine using internet connection

1. Click **Start > Control Panel > Programs and Features**. The **Programs and Features** window appears.

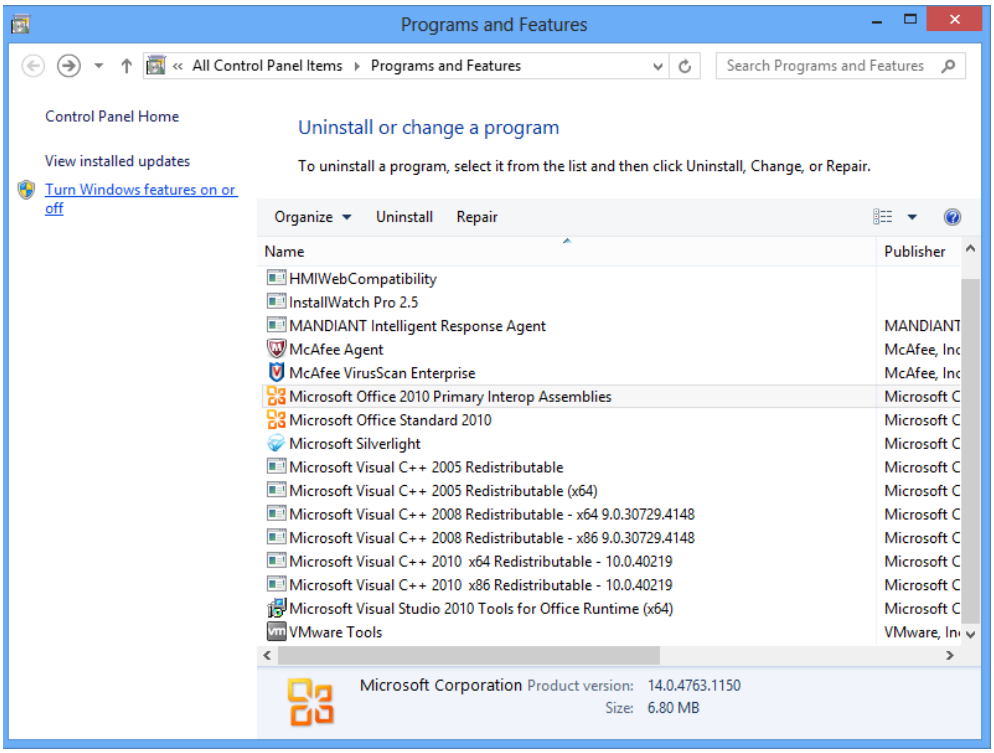


Figure 1-1 Program and Features

2. Under **Control Panel Home** pane, click **Turn Windows features on or off** link. The **Windows Features** dialog box appears.

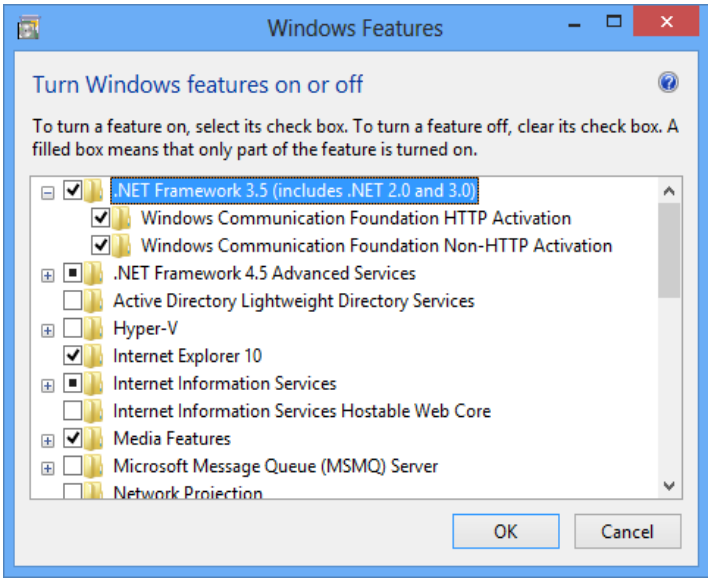

Windows Features
Turn Windows features on or off
To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.
.NET Framework 3.5 (includes .NET 2.0 and 3.0)
Windows Communication Foundation HTTP Activation
Windows Communication Foundation Non-HTTP Activation
.NET Framework 4.5 Advanced Services
Active Directory Lightweight Directory Services
Hyper-V
Internet Explorer 10
Internet Information Services
Internet Information Services Hostable Web Core
Media Features
Microsoft Message Queue (MSMQ) Server
Network Projection
OK
Cancel

Figure 1-2 Windows Features

3. Select the following check boxes and then click **OK**.
   - .Net Framework 3.5 (includes .Net2.0 and 3.0)
   - Windows Communication Foundation HTTP Activation
   - Windows Communication Foundation Non-HTTP Activation

To enable .NET 3.5 on Windows Server 2012 machine using internet connection

1. Navigate to **Server Manager -> Manage** and then click **Add Roles and features** link.
   Or
   Navigate to **Server Manager -> Dashboard -> Configure this local server** and then click **Add Roles and features** link as shown below.

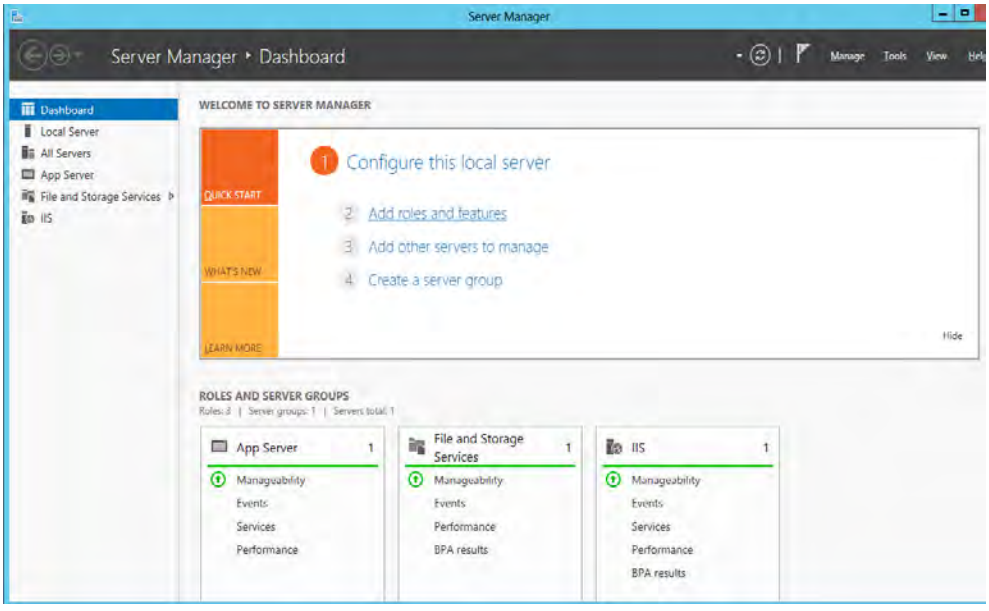


Figure 1-3 Server Manager Window

The **Add Roles and Features Wizard** appears.

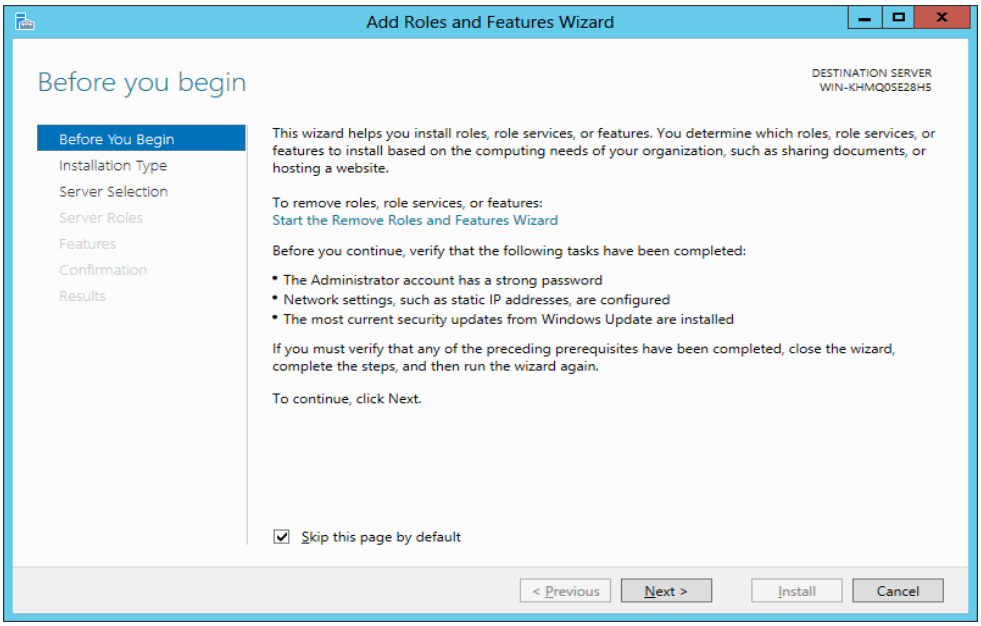

Add Roles and Features Wizard
Before you begin
DESTINATION SERVER
WIN-KHMQ0SE28H5
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.
To remove roles, role services, or features:
Start the Remove Roles and Features Wizard
Before you continue, verify that the following tasks have been completed:
• The Administrator account has a strong password
• Network settings, such as static IP addresses, are configured
• The most current security updates from Windows Update are installed
If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.
To continue, click Next.
Skip this page by default
< Previous
Next >
Install
Cancel

Figure 1-4 Add Roles and Features Wizard

2. Click **Next**. The **Add Role and Features Wizard** appears.

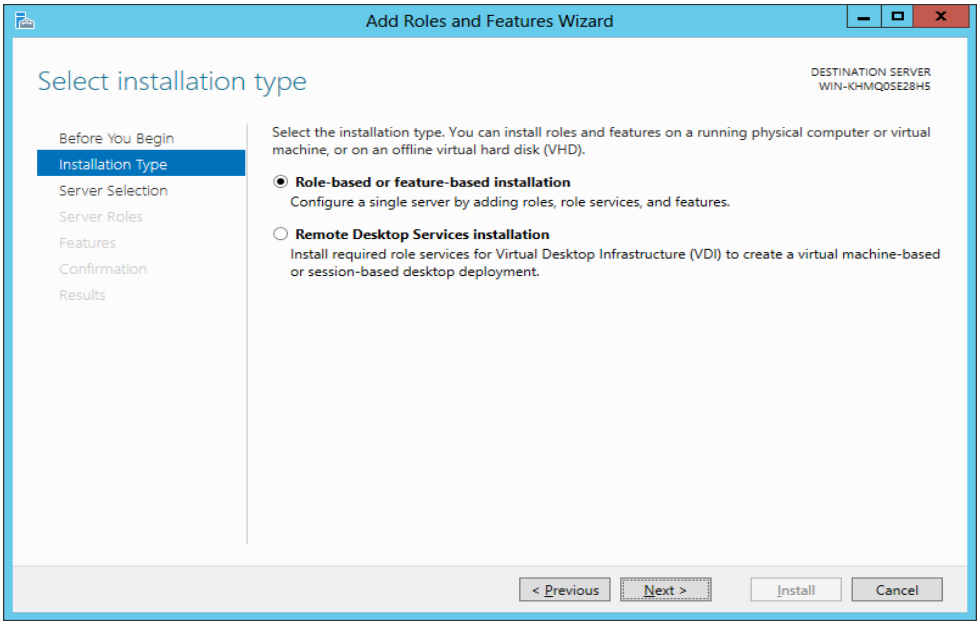

Add Roles and Features Wizard
Select installation type
DESTINATION SERVER
WIN-KHMQ0SE28H5
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).
Role-based or feature-based installation
Configure a single server by adding roles, role services, and features.
Remote Desktop Services installation
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.
< Previous
Next >
Install
Cancel

Figure 1-5 Select Installation type

3. Click **Role-based or feature- based installation** option and then click **Next**. The **Select Destination Server** screen appears.

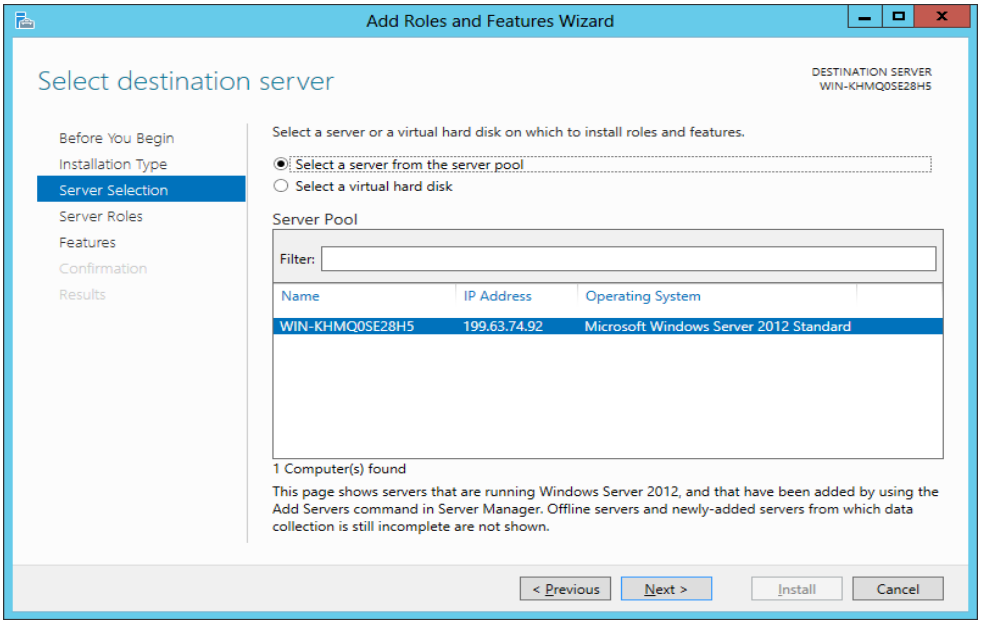

Add Roles and Features Wizard
Select destination server
DESTINATION SERVER
WIN-KHMQ0SE28H5
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select a server or a virtual hard disk on which to install roles and features.
Select a server from the server pool
Select a virtual hard disk
Server Pool
Filter:
Name
IP Address
Operating System
WIN-KHMQ0SE28H5
199.63.74.92
Microsoft Windows Server 2012 Standard
1 Computer(s) found
This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.
< Previous
Next >
Install
Cancel

Figure 1-6 Select destination server

4. Click **Select a server from the server pool** option and then select the current machine name listed under **Server Pool**. Click **Next**. Select server roles screen appears.

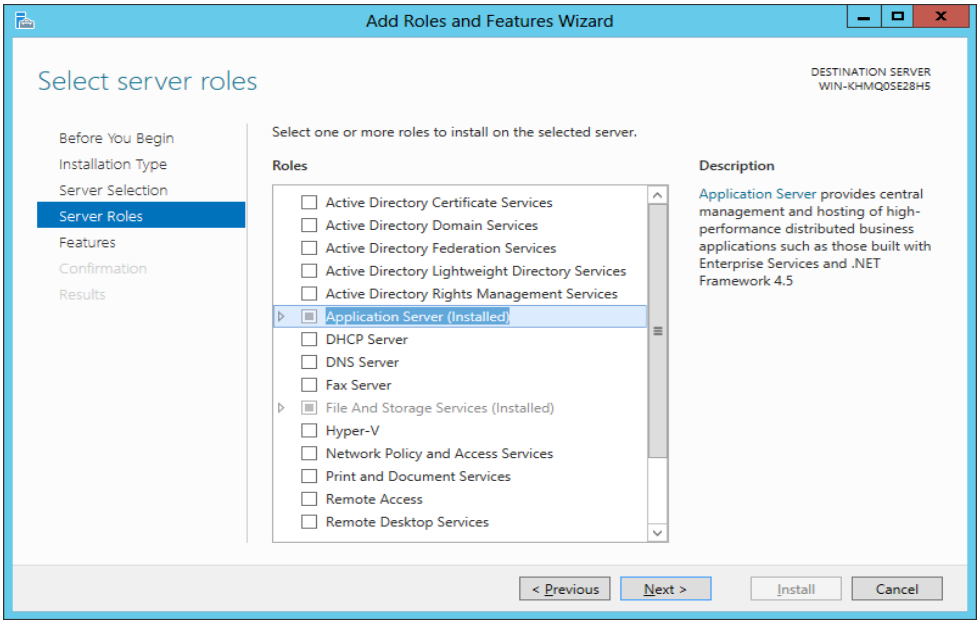


Figure 1-7 Select Server Roles

5. Under **Roles**, select the **Application server (Installed)** check box and then click **Next**. The **Add Roles and Features Wizard** appears

Note: The Add Roles and Features Wizard displayed differs on the HTTP Activation and Non-HTTP Activation features.

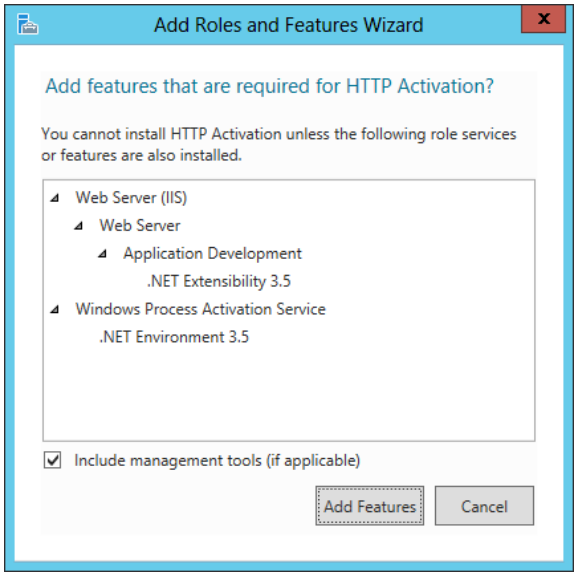

Add Roles and Features Wizard
Add features that are required for HTTP Activation?
You cannot install HTTP Activation unless the following role services or features are also installed.
Web Server (IIS)
Web Server
Application Development
.NET Extensibility 3.5
Windows Process Activation Service
.NET Environment 3.5
Include management tools (if applicable)
Add Features
Cancel

Figure 1-8 HTTP Activation

6. Click **Add Features** button.

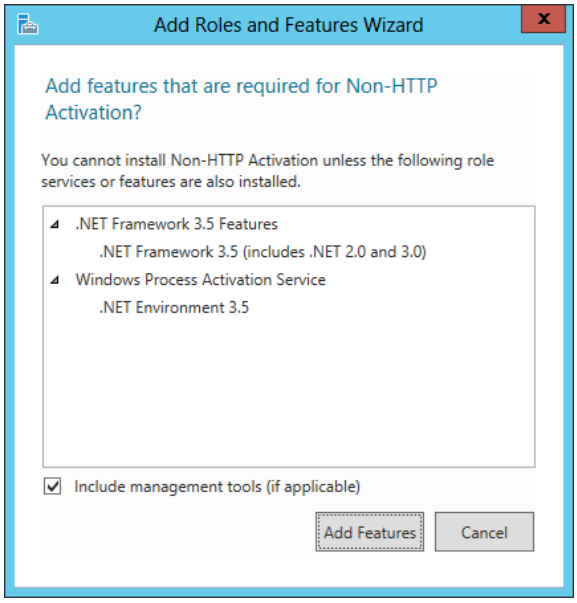

Add Roles and Features Wizard
Add features that are required for Non-HTTP Activation?
You cannot install Non-HTTP Activation unless the following role services or features are also installed.
.NET Framework 3.5 Features
.NET Framework 3.5 (includes .NET 2.0 and 3.0)
Windows Process Activation Service
.NET Environment 3.5
Include management tools (if applicable)
Add Features
Cancel

Figure 1-9 Non-HTTP Activation

7. Click **Add Features**. The **Select Features** screen appears.

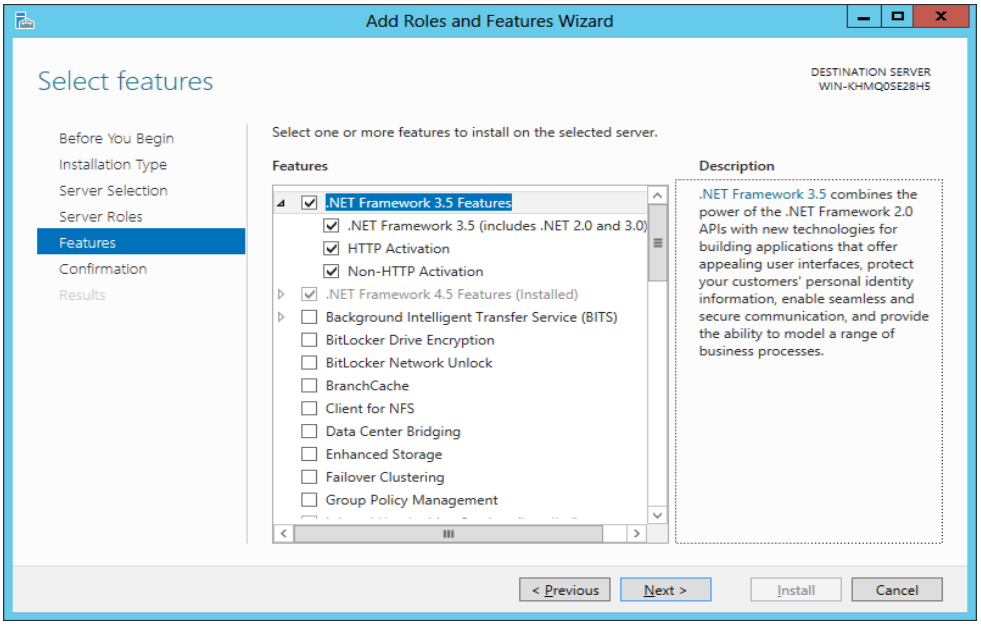

Add Roles and Features Wizard
Select features
DESTINATION SERVER
WIN-KHMQ0SE28H5
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more features to install on the selected server.
Features
Description
.NET Framework 3.5 Features
.NET Framework 3.5 (includes .NET 2.0 and 3.0)
HTTP Activation
Non-HTTP Activation
.NET Framework 4.5 Features (Installed)
Background Intelligent Transfer Service (BITS)
BitLocker Drive Encryption
BitLocker Network Unlock
BranchCache
Client for NFS
Data Center Bridging
Enhanced Storage
Failover Clustering
Group Policy Management
.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
< Previous
Next >
Install
Cancel

Figure 1-10 Select Features

8. Select the following feature check boxes in the **Features** pane:
   - .Net Framework 3.5 features
   - .Net Framework 3.5 (includes .Net 2.0 and 3.0)
   - HTTP Activation
   - Non-HTTP Activation

9. Click **Next**. The **Confirm installation selection** screen appears.

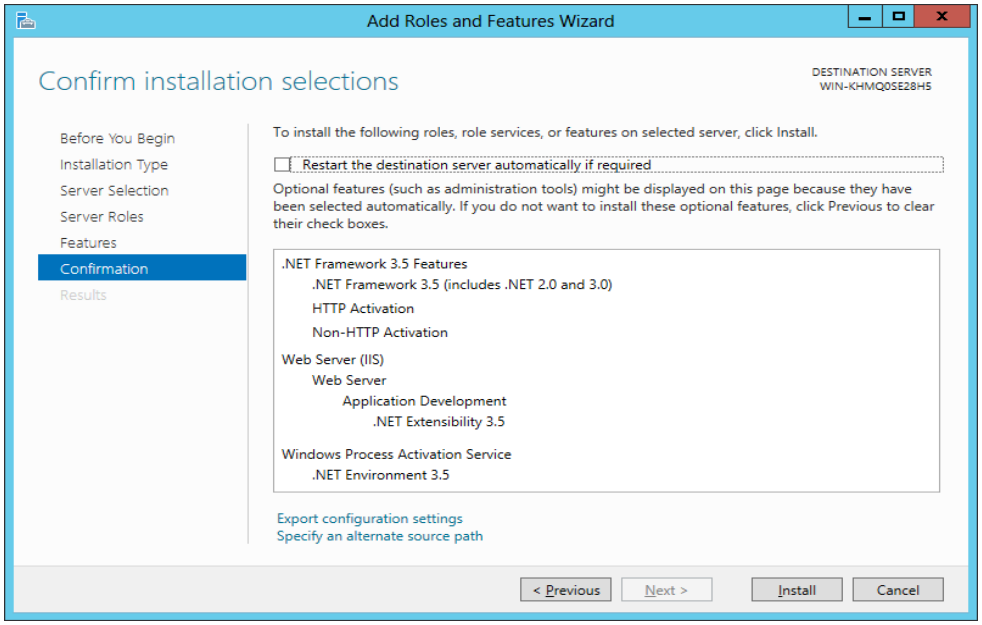

Add Roles and Features Wizard
Confirm installation selections
DESTINATION SERVER
WIN-KHMQ0SE28H5
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
To install the following roles, role services, or features on selected server, click Install.
Restart the destination server automatically if required
Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.
.NET Framework 3.5 Features
.NET Framework 3.5 (includes .NET 2.0 and 3.0)
HTTP Activation
Non-HTTP Activation
Web Server (IIS)
Web Server
Application Development
.NET Extensibility 3.5
Windows Process Activation Service
.NET Environment 3.5
Export configuration settings
Specify an alternate source path
< Previous
Next >
Install
Cancel

Figure 1-11 Confirm Installation Selection

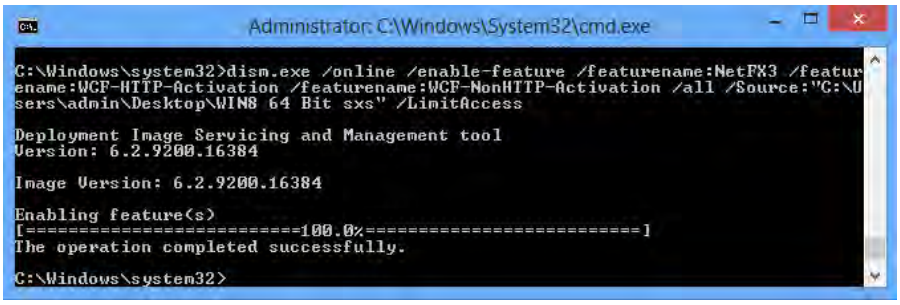
10. Click **Install**.

To enable .NET 3.5 on Windows 8 and Server 2012 machine without internet connection

1. Insert the Windows OS DVD in the DVD drive.
2. Browse the **Sxs** folder and copy the path. For Example: **E:\ Sources\SxS**.
3. Execute the following command from the command prompt window using the **Administrative** privileges. The **<<PATH_TO_WIN_SXS_FOLDER>>** should be replaced with the actual path of **Sxs** folder as explained in step 2.

%WINDIR%\system32\dism.exe /online /enable-feature /featurename:NetFX3 /featurename:WCF-HTTP-Activation /featurename:WCF-NonHTTP-Activation /all /Source:<<PATH_TO_WIN_SXS_FOLDER>> /LimitAccess

Note: Use the **cmd.exe** available in the path **C:\windows\system32** folder on 64 bit Operating System.



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3

INSTALLING THE MAXPRO VMS R310 SOFTWARE

OVERVIEW

This chapter describes the procedures for installing MAXPRO VMS R310 software. Follow the appropriate section in this chapter to complete the software installation.

BEFORE YOU BEGIN

Ensure that:

1. the client and server computers meet the software requirements.
2. Internet Information Services Manager (IIS) is installed on your computer.
3. Windows Updates are disabled.
4. UAC is disabled.
5. you have configured the user credentials which never expires in **Computer Management** window.

SYSTEM REQUIREMENTS

The client and server computers must meet the following specifications.

Table 2-1 Software Specifications

Operating System	Microsoft Windows® 7 Professional (64-Bit and 32-Bit) and Windows 8.1 OS for MAXPRO VMS Workstation. Microsoft Windows® Server 2008 R2 Standard Edition (64 Bit Version) on 64 Bit Server and Windows server 2012 OS for MAXPRO VMS Server.
Antivirus	McAfee® VirusScan 8.8, or Symantic® Antivirus V10.
Monitor Resolution	1024x768 pixels, 65K colors non-interlaced.

OPERATION SYSTEM SPECIFICATIONS FOR THE RECORDERS

Few of the recorders run only on specific operating systems. Before installing the device drivers for the recorders, please refer to the “Operating Systems” sheet in the

MAXPROVMS_HW_SW_Compatibility_Matrix.xls file available on the MAXPRO VMS R310 DVD.

INSTALLING THE MAXPRO VMS SOFTWARE

To complete MAXPRO VMS installation follow the procedures in these sections.

1. First, *How to Install MAXPRO VMS.*
2. Choose the installation that best suits your requirements and follow the appropriate steps.
   - *Complete Installation*
   - *Custom Installation*

HOW TO INSTALL MAXPRO VMS

Note: The installing user should be administrator or domain/work group administrator

To install MAXPRO VMS

1. Insert the MAXPRO VMS R310 DVD in the DVD drive. The setup runs automatically. If the setup does not run automatically, browse to the setup folder on the DVD and double-click **Setup. exe**.

Note A confirmation message is displayed to disable the Automatic Windows updates as shown below. Click **Yes** to disable and proceed. The **Welcome** dialog box appears. See *Windows Updates*.

Question
Automatic Windows update has been enabled in your system. To install MAXPRO VMS R310, you have to disable automatic updates. Click Yes to disable automatic updates and proceed with installation
Yes
No

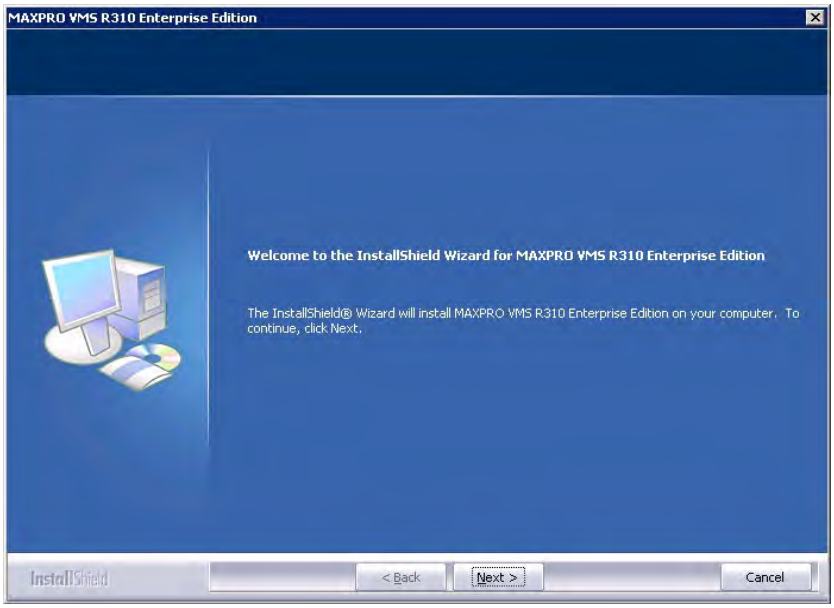

MAXPRO VMS R310 Enterprise Edition
Welcome to the InstallShield Wizard for MAXPRO VMS R310 Enterprise Edition
The InstallShield® Wizard will install MAXPRO VMS R310 Enterprise Edition on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

Figure 3-1 Welcome

2. Click **Next**. The **License Agreement** dialog box appears. The dialog box displays the license agreement for the MAXPRO VMS software.

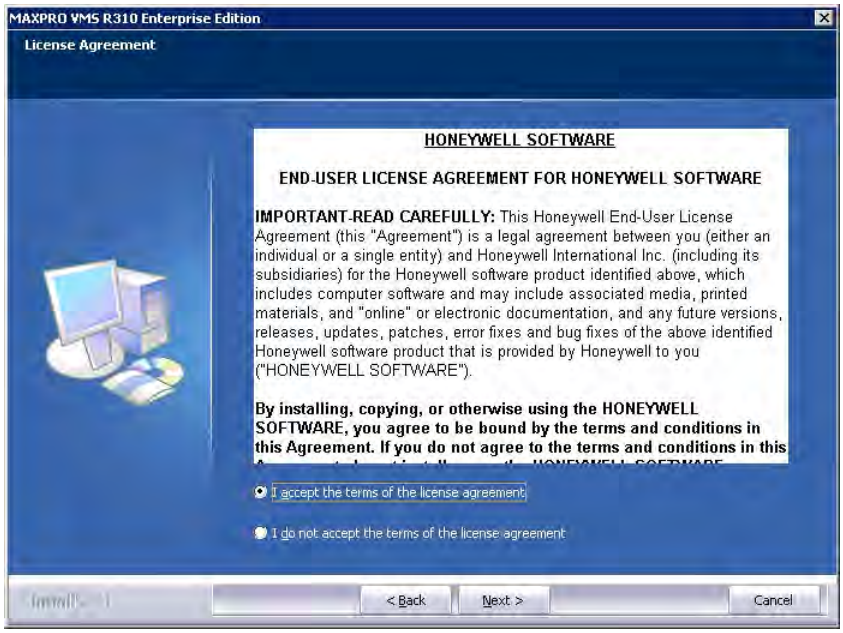

MAXPRO VMS R310 Enterprise Edition
License Agreement
HONEYWELL SOFTWARE
END-USER LICENSE AGREEMENT FOR HONEYWELL SOFTWARE
IMPORTANT-READ CAREFULLY: This Honeywell End-User License Agreement (this "Agreement") is a legal agreement between you (either an individual or a single entity) and Honeywell International Inc. (including its subsidiaries) for the Honeywell software product identified above, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation, and any future versions, releases, updates, patches, error fixes and bug fixes of the above identified Honeywell software product that is provided by Honeywell to you ("HONEYWELL SOFTWARE").
By installing, copying, or otherwise using the HONEYWELL SOFTWARE, you agree to be bound by the terms and conditions in this Agreement. If you do not agree to the terms and conditions in this
I accept the terms of the license agreement
I do not accept the terms of the license agreement
< Back
Next >
Cancel

Figure 3-2 License Agreement

3. Read the license agreement, and then click **I accept the terms of the license agreement** to accept the license agreement.
4. Click **Next**. The **Customer Information** dialog box appears.

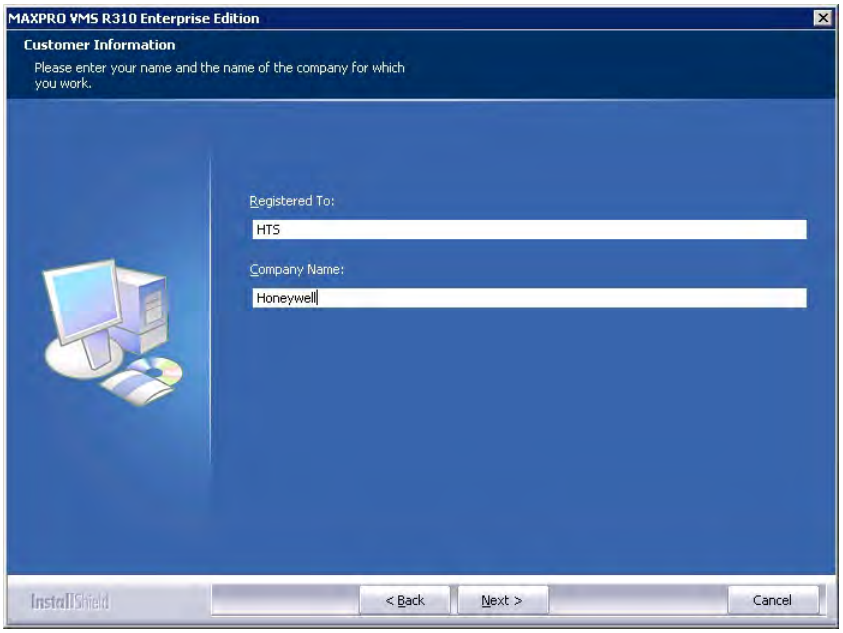


Figure 3-3 Customer Information

5. In the **Registered To** box, type your name.
6. In the **Company Name** box, type your company name.

7. Click **Next**. The **Choose Destination Location** dialog box appears.

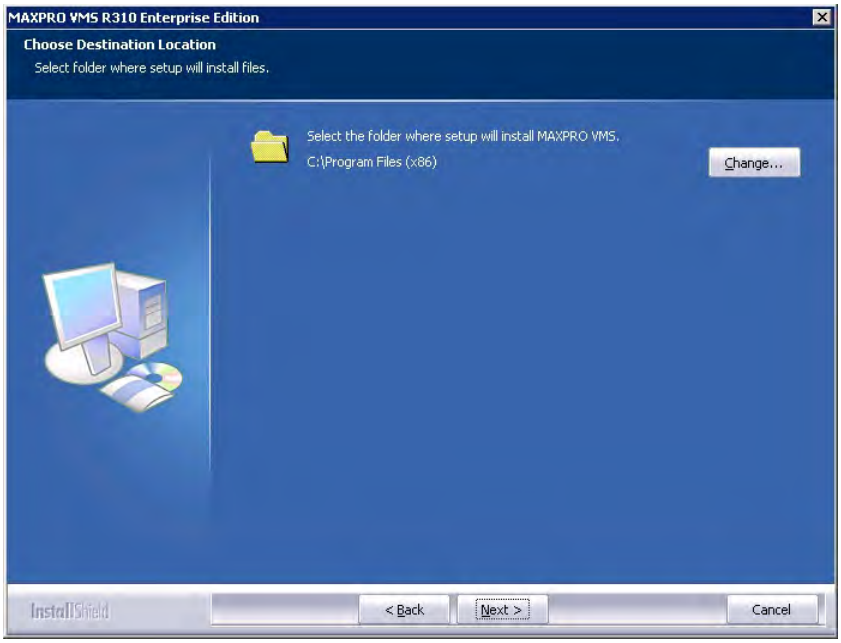


Figure 3-4 Choose Destination Location

Note: Honeywell recommends you to install the MAXPRO VMS R310 software in **C** drive. By default **C** drive is selected. Click **Change** to change the default destination folder, and then select the path to install.

8. Click **Next**. The **Validation of User Credentials** dialog box appears.

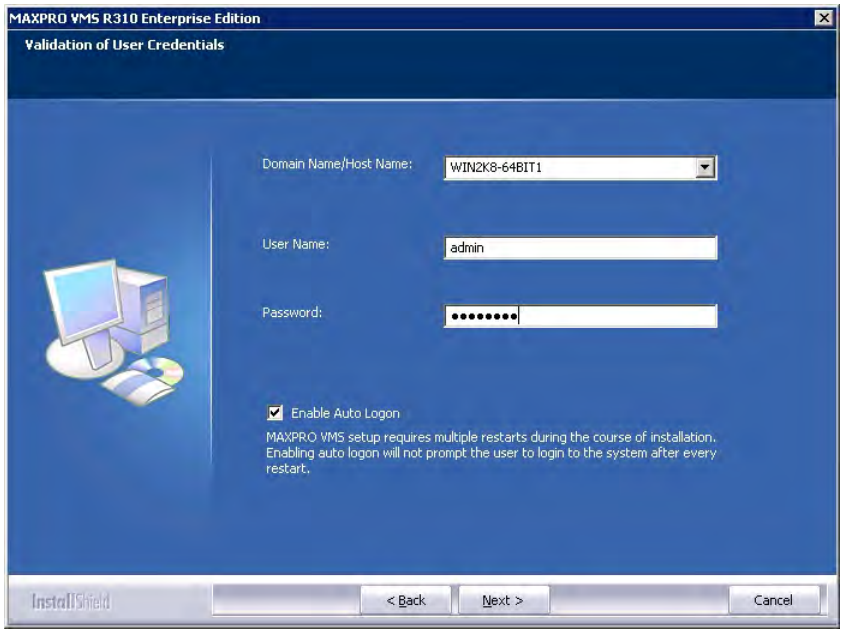

MAXPRO VMS R310 Enterprise Edition
Validation of User Credentials
Domain Name/Host Name:
WIN2K8-64BIT1
User Name:
admin
Password:
Enable Auto Logon
MAXPRO VMS setup requires multiple restarts during the course of installation. Enabling auto logon will not prompt the user to login to the system after every restart.
InstallShield
< Back
Next >
Cancel

Figure 3-5 Validation of User Credentials

Note: The user credentials of theWindows user that was used to log onto the machine

9. In the **Domain Name/Host Name** list, type the domain name if you know it or select one from the list. If you are not installing on a domain choose the local computer name.
10. In the **User Name** box, type your Windows user name. Provide the admin credentials only.
11. In the **Password** box, type your Windows password. Provide the admin credentials only.

Note: Ensure that you provide and install with **Admin** credentials only.

12. Select the **Enable Auto Logon** check box if you want the computer to reboot on its own whenever required, during the installation process.

Note: You are prompted to reboot multiple times while installing MAXPRO VMS R310, auto log on avoids manual intervention during multiple reboots.

13. Click **Next**. The **Installation Type** dialog box appears.

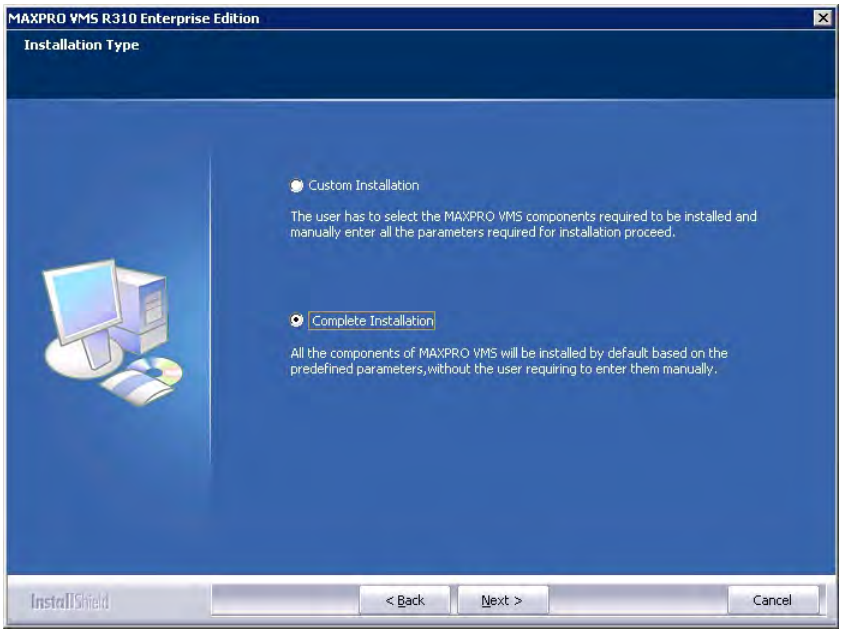

MAXPRO VMS R310 Enterprise Edition
Installation Type
Custom Installation
The user has to select the MAXPRO VMS components required to be installed and manually enter all the parameters required for installation proceed.
Complete Installation
All the components of MAXPRO VMS will be installed by default based on the predefined parameters,without the user requiring to enter them manually.
InstallShield
< Back
Next >
Cancel

Figure 3-6 Installation Type

14. Select **Custom Installation** or **Complete Installation** as applicable. Use the instructions in one of the following sections that corresponds to the feature that you are installing, *Complete Installation* or *Custom Installation*.

Table 2-2 Select Features to Install

Complete Installation	Installs MAXPRO VMS Server, MAXPRO VMS Client, MAXPRO VMS Scheduler, MAXPRO VMS Trinity Framework, Device drivers, Adapters and Analytics Sever and Client. See *Complete Installation*.
Custom Installation	Helps you to choose between MAXPRO VMS Server, MAXPRO VMS Client and Analytics Sever and Client. See *Custom Installation*. **Note:** Choosing the “Custom Installation” option can save the installation time by eliminating the installation of any unnecessary modules.

COMPLETE INSTALLATION

Complete installation can be selected when you are operating MAXPRO VMS R310 from a location that consists of all the Drivers, Switchers and Analytics Servers. Complete installation requires computers with performance configuration.

BEFORE YOU BEGIN

Complete installation can be done to:

- Server and Client.
- Install Video Analytics Server

1. Perform steps 1 through 13 of *How to Install MAXPRO VMS*, select **Complete Installation** in the **Installation Type** dialog box, and then click **Next**. Click **Next**. The **Database Server Login** dialog box appears.

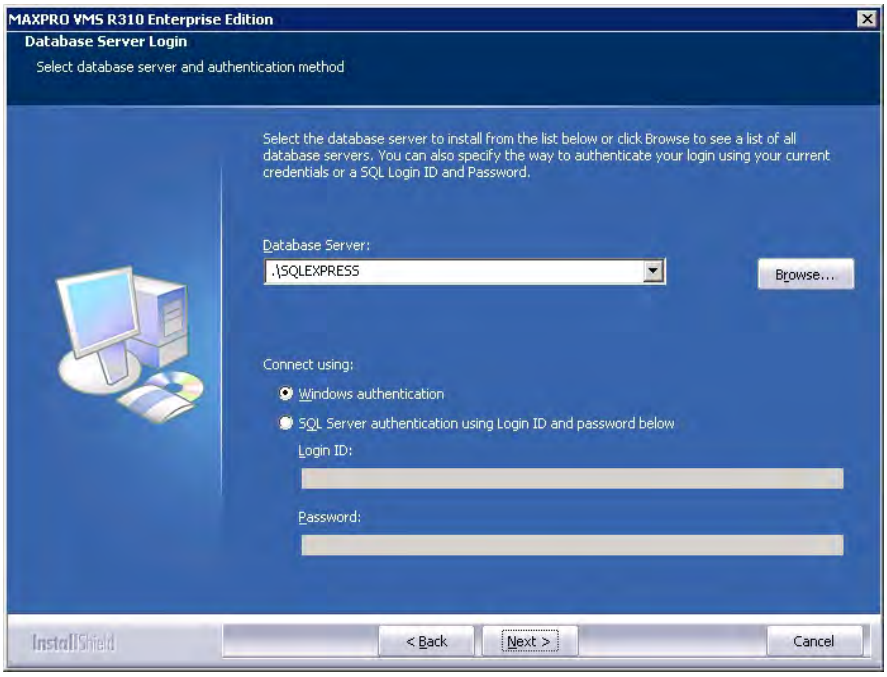

MAXPRO VMS R310 Enterprise Edition
Database Server Login
Select database server and authentication method
Select the database server to install from the list below or click Browse to see a list of all database servers. You can also specify the way to authenticate your login using your current credentials or a SQL Login ID and Password.
Database Server:
.\SQLEXPRESS
Browse...
Connect using:
Windows authentication
SQL Server authentication using Login ID and password below
Login ID:
Password:
InstallShield
< Back
Next >
Cancel

Figure 3-7 Database Server Login

2. Click **Browse**, and then select any existing SQL database. You can select the existing SQL database on the same network or from a remote computer. If you do not want to select an existing database, proceed to *step 4*.

Caution: If the SQL Server Express instance is available on a remote computer and if you do not have sufficient permissions to fetch the instance, then as a result an error message is displayed. In this scenario, the Database Administrator (DBA) must execute some SQL scripts so that instance is fetched. The scripts are available on the installation DVD. For different scenarios on SQL Express 2012 see *SQL Express 2012 Scenarios*.

3. Select **Connect using** option as **Windows authentication** or **SQL Server authentication using Login ID and password below** as per the requirement, and then click **Next**. You are prompted to install SQL Server 2012 Express.

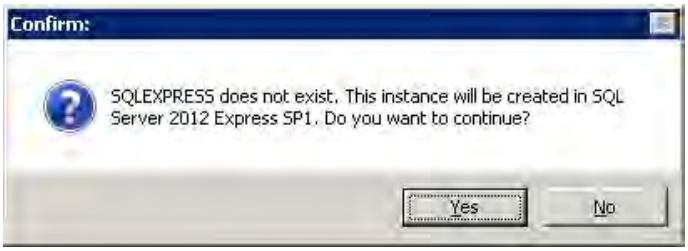

Confirm:
SQLEXPRESS does not exist. This instance will be created in SQL Server 2012 Express SP1. Do you want to continue?
Yes
No

Figure 3-8 Prompt to install SQL Server 2012 Express

Note: See *SQL Express 2012 Scenarios* for various SQL 2012 Scenarios. If you enter an invalid Login ID and Password to connect SQL Server then see *Manual Steps if SQL Connection Fails*.

4. Click **Yes**. The **Choose TrinityDatabase location** dialog box appears.

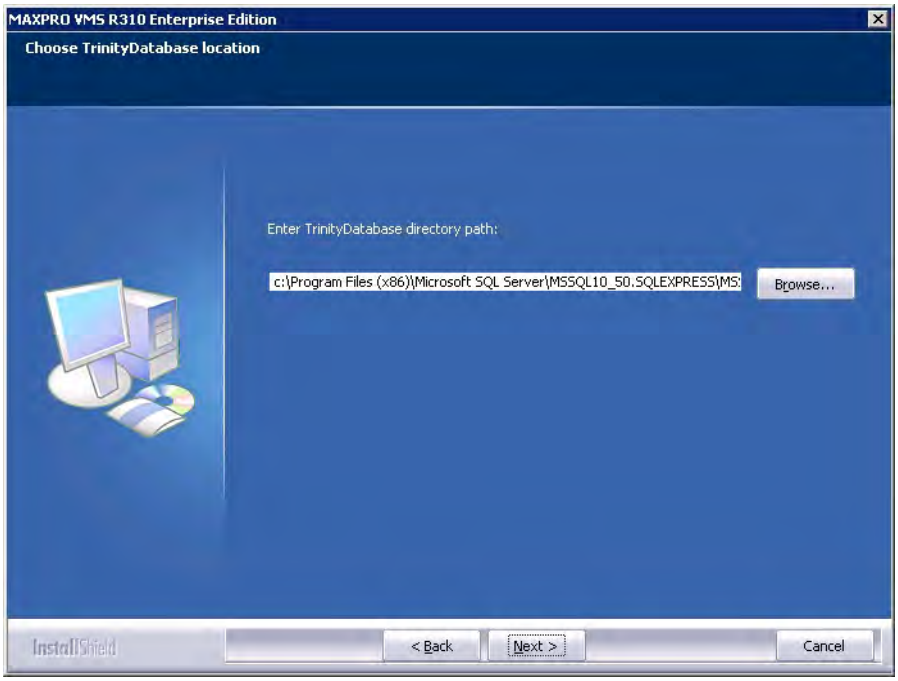


Figure 3-9 Choose TrinityDatabase Location

Note: Click **Browse** to change the default destination folder, and then select the folder where the Trinity database server must be installed. It is best practice to Install the Database on a seperate Mirrored hard drive. This ensures the database is still available if the OS drive is failed or get corrupted.

5. Click **Next**. The **Choose Cache file location** dialog box appears.

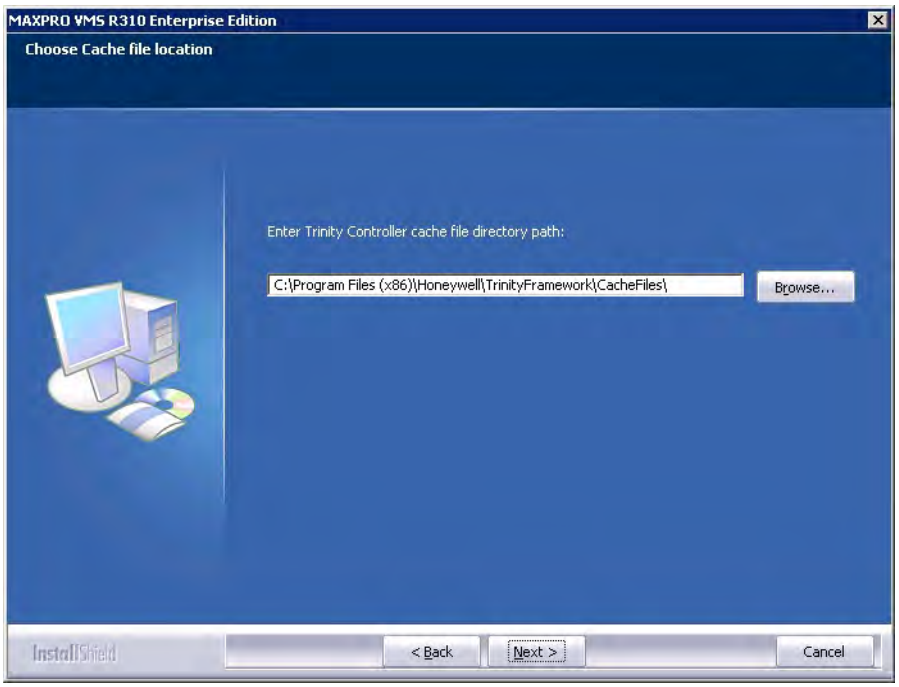


Figure 3-10 Choose Cache file location

Note: Click **Browse** to change the default destination folder, and then select the folder where the cache files must be installed.

6. Click **Next**. The **Language selection for analytics application** dialog box appears.

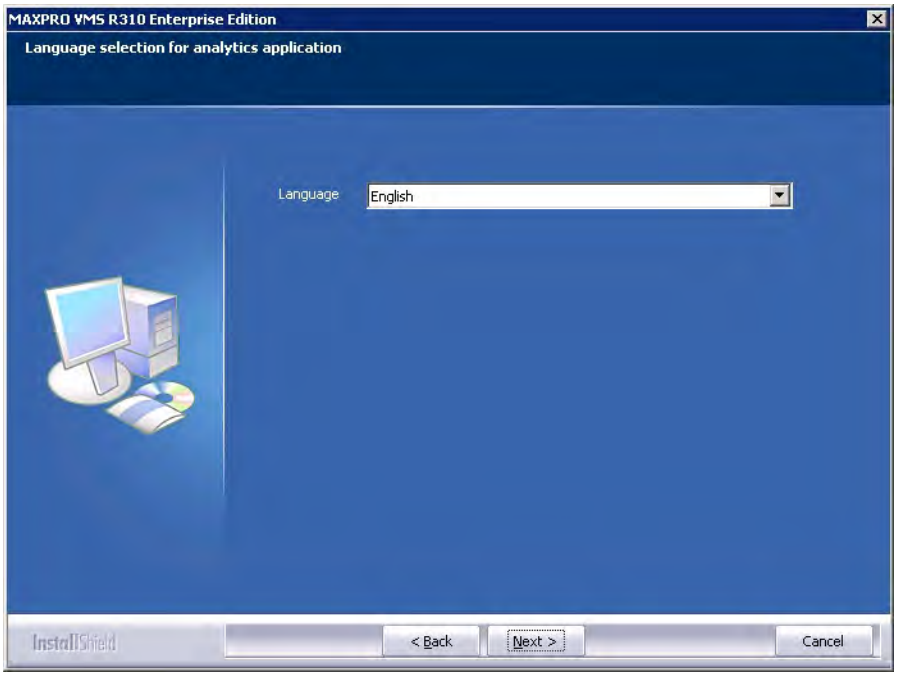


Figure 3-11 Language selection for analytics application

7. From the **Language** drop-down list, select the required language.

8. Click **Next**. The **Start Copying Files** dialog box appears.

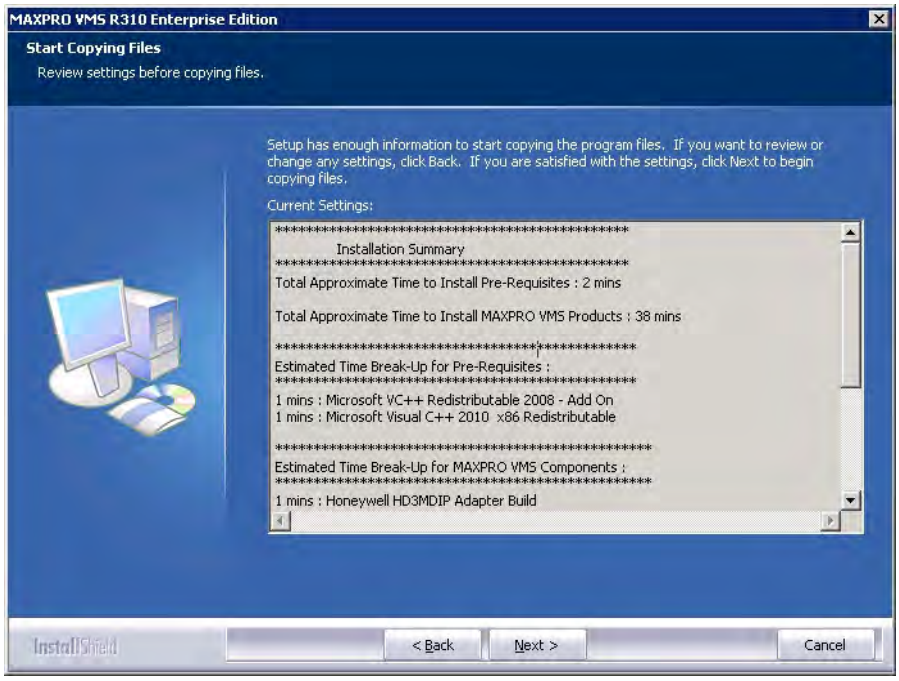

MAXPRO VMS R310 Enterprise Edition
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Installation Summary
Total Approximate Time to Install Pre-Requisites : 2 mins
Total Approximate Time to Install MAXPRO VMS Products : 38 mins
Estimated Time Break-Up for Pre-Requisites :
1 mins : Microsoft VC++ Redistributable 2008 - Add On
1 mins : Microsoft Visual C++ 2010 x86 Redistributable
Estimated Time Break-Up for MAXPRO VMS Components :
1 mins : Honeywell HD3MDIP Adapter Build
InstallShield
< Back
Next >
Cancel

Figure 3-12 Start Copying Files

9. If you want to review or change any settings click **Back**.

Note: The **Start Copying Files** dialog box displays the total approximate time for installing the prerequisites and total approximate time for installing the MAXPRO VMS R310 components. Please note that prerequisites take more time for installation than the MAXPRO VMS R310 components.

---

10. Click **Next**. The following message appears.

Confirm:
Setup has detected that listed Pre-Requisites are not installed in your system. Click 'Yes' to proceed and the Pre-Requisites will be automatically installed or Click 'No' to install the Pre-Requisites manually.
Yes
No

Figure 3-13 Confirmation Message to install Prerequisites

11. Click **Yes** to install the prerequisites automatically, else click **No**.

Note: From *step 12* onwards till the end of the installation, the prerequisites and MAXPRO VMS components are installed automatically without requiring any manual intervention.

---

12. After all the prerequisites and MAXPRO VMS R310 components are successfully installed, the **InstallShield Wizard Complete** dialog box appears.

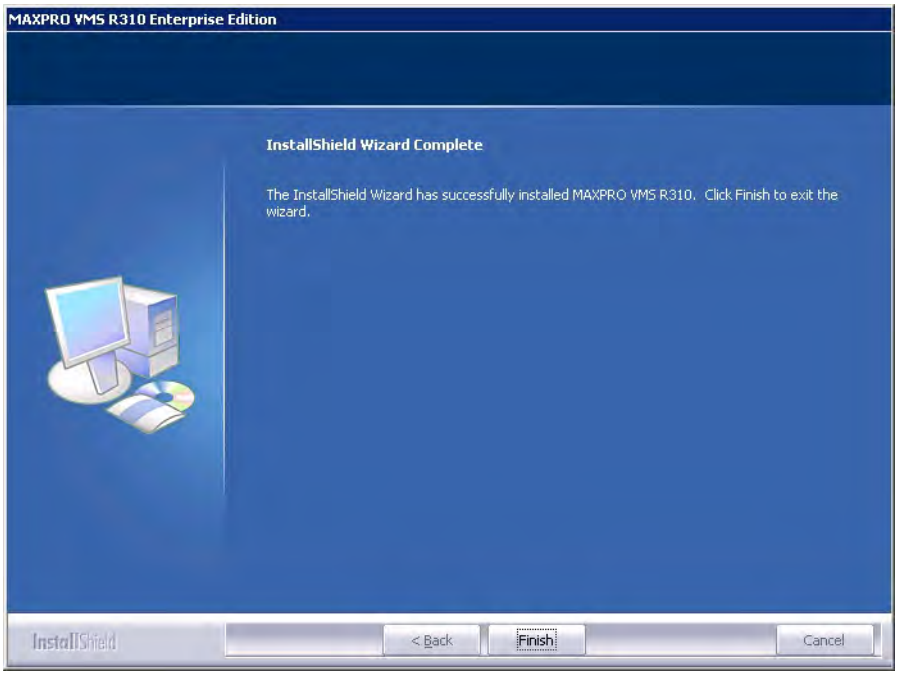

MAXPRO VMS R310 Enterprise Edition
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed MAXPRO VMS R310. Click Finish to exit the wizard.
InstallShield
< Back
Finish
Cancel

Figure 3-14 Install Shield Wizard Complete

13. Click **Finish**. Your computer reboots. The installation is complete after the reboot operation.

CUSTOM INSTALLATION

Custom installation gives you an option to install the server and the client. You can choose to install various device drivers. The following table lists the type of installation you can do using the custom installation option.

Table 2-3 Select features to install

Server	MAXPRO VMS server and device drivers are installed. See *Server Installation*.
Client	MAXPRO VMS client and MAXPRO VMS Framework are installed. See *Client Installation*.
Honeywell Video Analytics (HVA)	Video Analytics is installed, *Video Analytics Server Installation*

SERVER INSTALLATION

Server installation involves installing MAXPRO VMS server, device drivers, and redundant server.

1. Perform steps 1 through 13 in the section *How to Install MAXPRO VMS*. The **Installation Type** dialog box appears.

2. Select **Custom Installation**, and then click **Next**. The **Select Features** dialog box appears.

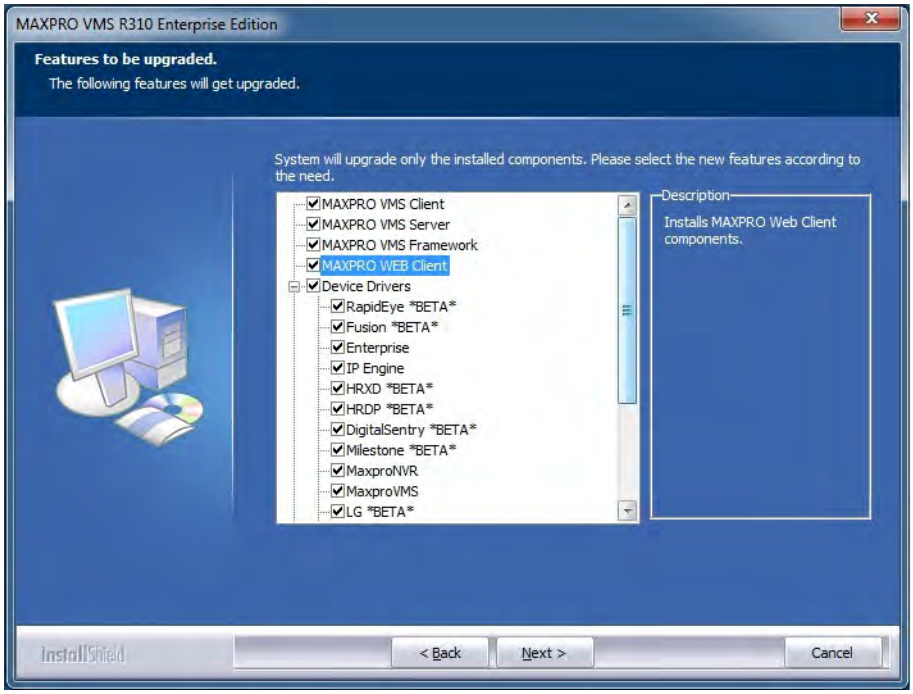


Figure 3-15 Select Features

Note: Beta version drivers are supported but not tested.

3. Select **MAXPRO VMS Server**, and then click **Next**.

Note: You can add the device drivers and other features at a later stage if required. At any point if the R310 installation fails to install the selected component, you can clean the system using the Uninstall Utility and then reinstall the R310 software. See *Cleaning the System*.

4. The **Database Server Login** dialog box appears.

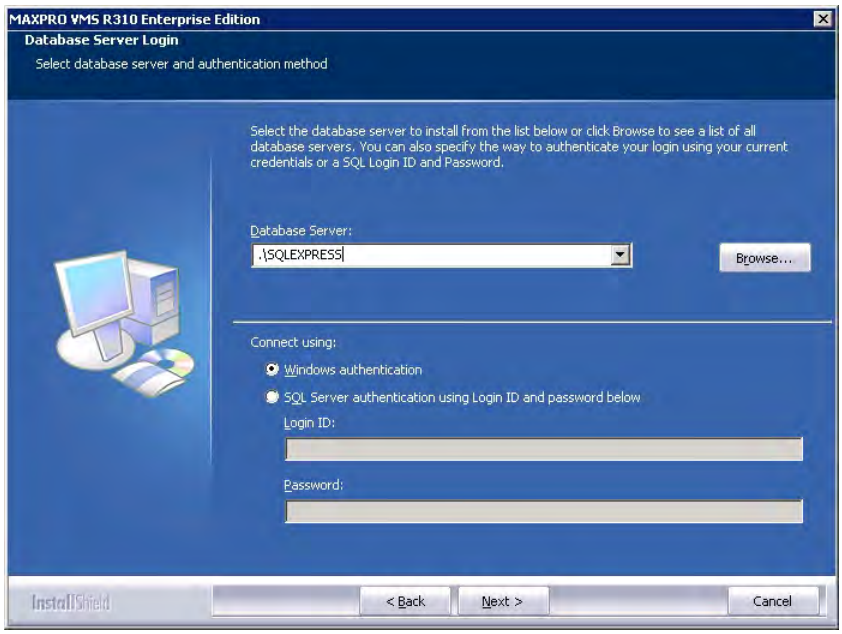

MAXPRO VMS R310 Enterprise Edition
Database Server Login
Select database server and authentication method
Select the database server to install from the list below or click Browse to see a list of all database servers. You can also specify the way to authenticate your login using your current credentials or a SQL Login ID and Password.
Database Server:
.\SQLEXPRESS
Browse...
Connect using:
Windows authentication
SQL Server authentication using Login ID and password below
Login ID:
Password:
InstallShield
< Back
Next >
Cancel

Figure 3-16 Database Server Login

5. Click **Browse**, and then select any existing SQL database. You can select the existing SQL database on the same network. If you do not want to select an existing database, click **Next** and proceed to *step 7*. The **Choose TrinityDatabase location** dialog box appears.
6. Select **Connect using** option as **Windows authentication** or **SQL Server authentication using Login ID and password below** as per the requirement, and then click **Next**. You are prompted to install SQL Server 2012 Express.

Note: See *SQL Express 2012 Scenarios* for various SQL 2012 Scenarios. If you enter an invalid Login ID and Password to connect SQL Server then see *Manual Steps if SQL Connection Fails*.

---

7. Click **Yes**. The **Choose TrinityDatabase location** dialog box appears.

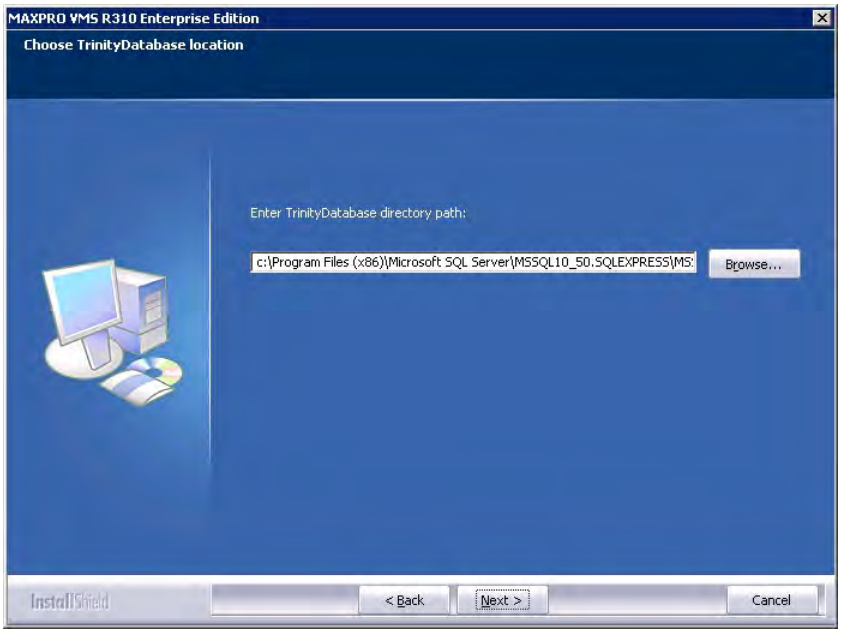


Figure 3-17 Choose TrinityDatabase location

Note: Click **Browse** to change the default destination folder, and then select the folder where the Trinity database server must be installed. It is best practice to Install the Database on a seperate Mirrored hard drive. This ensures the database is still available if the OS drive is failed or get corrupted.

8. Click **Next**. The **Choose Cache file location** dialog box appears.

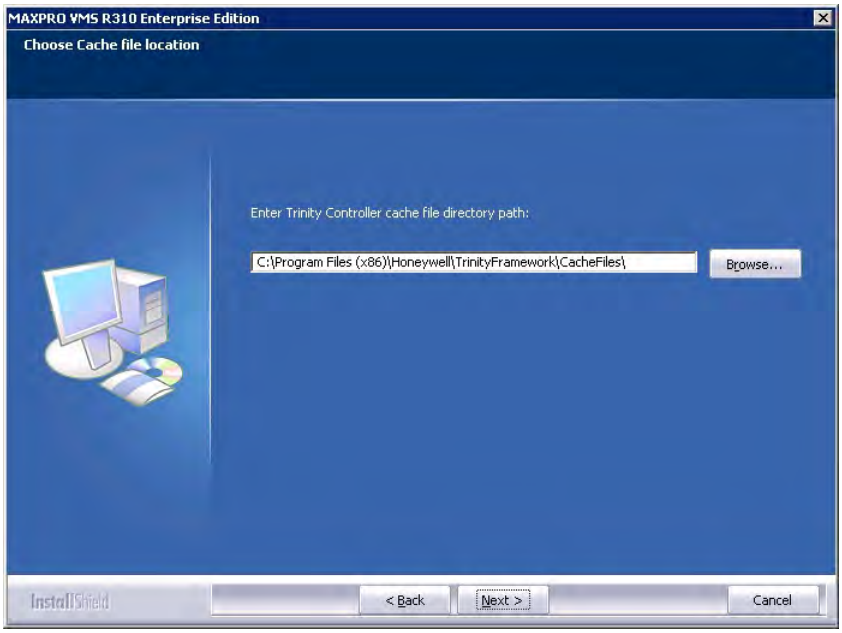


Figure 3-18 Choose Cache file location

Note: Click **Browse** to change the default destination folder, and then select the folder where the cache files must be installed.

9. Click **Next**. The **Language selection for analytics application** dialog box appears.

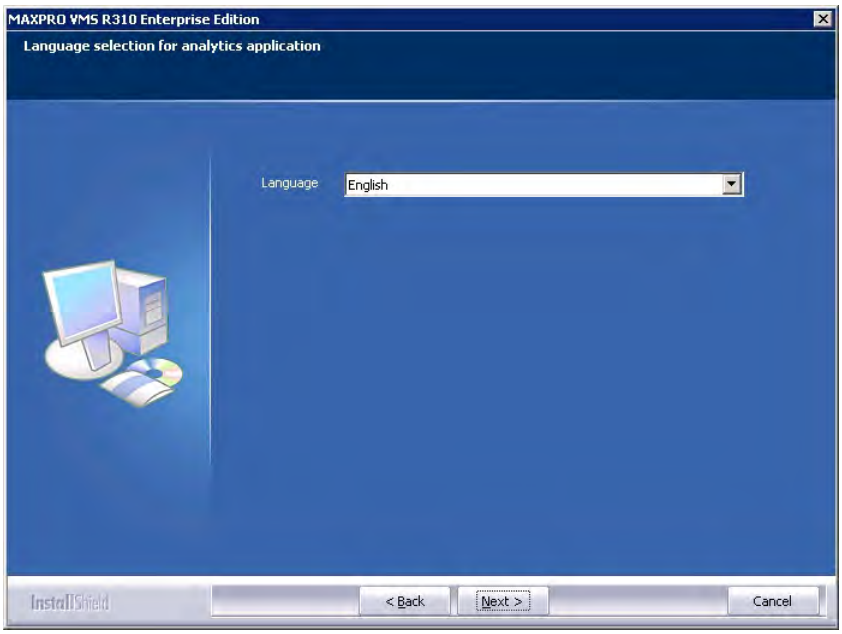


Figure 3-19 Language selection for analytics application

10. From the **Language** drop-down list, select the required language.
11. Click **Next**. The **Start Copying Files** dialog box appears.

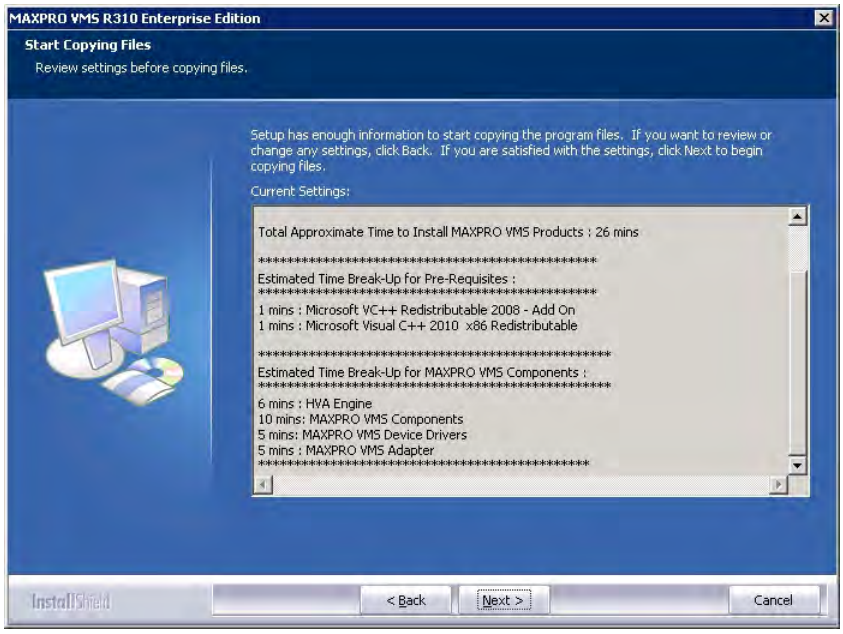
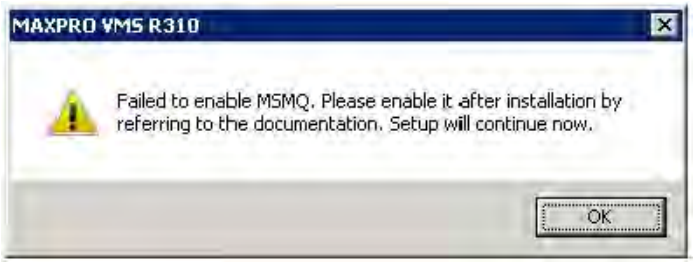

MAXPRO VMS R310 Enterprise Edition
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Total Approximate Time to Install MAXPRO VMS Products : 26 mins
Estimated Time Break-Up for Pre-Requisites :
1 mins : Microsoft VC++ Redistributable 2008 - Add On
1 mins : Microsoft Visual C++ 2010 x86 Redistributable
Estimated Time Break-Up for MAXPRO VMS Components :
6 mins : HVA Engine
10 mins: MAXPRO VMS Components
5 mins: MAXPRO VMS Device Drivers
5 mins : MAXPRO VMS Adapter
InstallShield
< Back
Next >
Cancel

Figure 3-20 Start Copying Files

12. If you want to make any changes click **Back**.

Note In some PCs the installation fails to enable MSMQ (Message Queuing) automatically. In such scenarios the following message is displayed.


MAXPRO VMS R310
Failed to enable MSMQ. Please enable it after installation by referring to the documentation. Setup will continue now.
OK

To resolve this issue

1. After the server installation is completed, download and install the windows update **KB 2749655** (based on your Operating System) from the below site.
http://support.microsoft.com/kb/2749655

2. Refer and perform the instruction given in the below site to enable the MSMQ.
http://msdn.microsoft.com/en-us/library/aa967729(v=vs.110).aspx

13. Click **Next**. The MAXPRO VMS Server is installed and the **InstallShield Wizard Complete** dialog box appears.

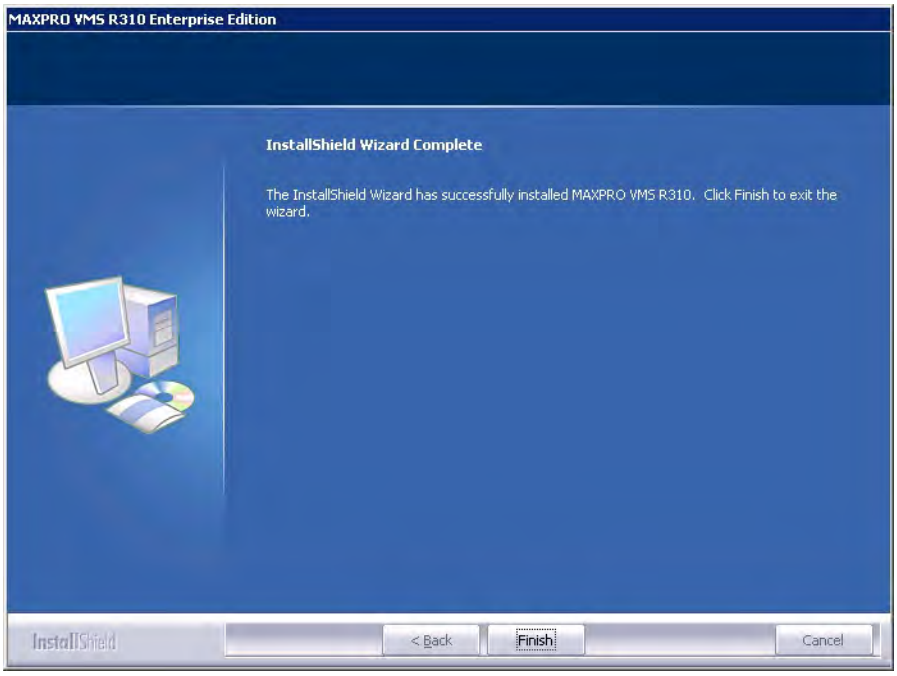

MAXPRO VMS R310 Enterprise Edition
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed MAXPRO VMS R310. Click Finish to exit the wizard.
InstallShield
< Back
Finish
Cancel

Figure 3-21 Install Shield Wizard Complete

14. Click **Finish**. The computer restarts and the installation is complete.

Note: At any point if the R310 installation fails to install the selected components, then you must clean the system using the Uninstall Utility and reinstall the R310 software. See *Cleaning the System*.

CLIENT INSTALLATION

1. Perform steps 1 through 13 in the section *How to Install MAXPRO VMS*. The **Installation Type** dialog box appears.

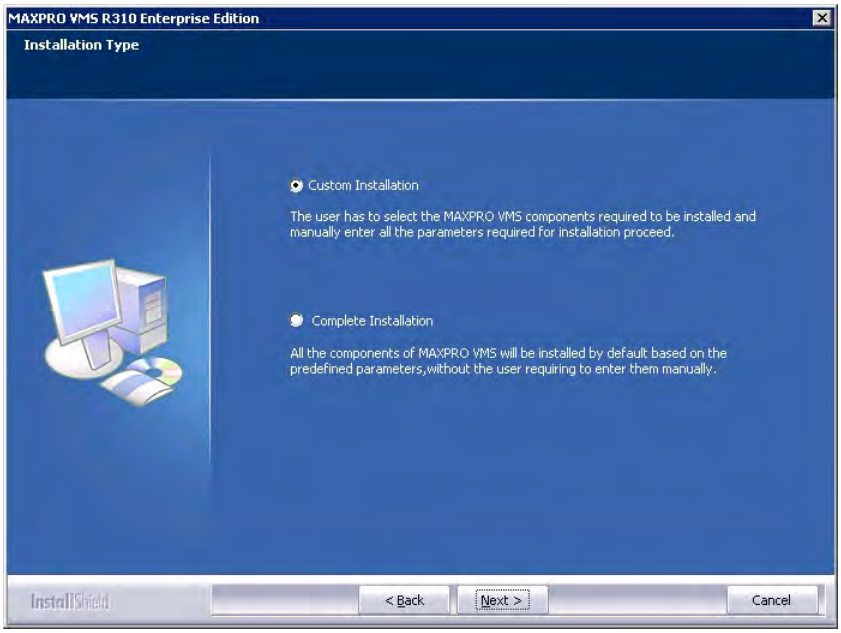

MAXPRO VMS R310 Enterprise Edition
Installation Type
Custom Installation
The user has to select the MAXPRO VMS components required to be installed and manually enter all the parameters required for installation proceed.
Complete Installation
All the components of MAXPRO VMS will be installed by default based on the predefined parameters,without the user requiring to enter them manually.
InstallShield
< Back
Next >
Cancel

Figure 3-22 Installation Type

2. Select **Custom Installation**, and then click **Next**. The **Select Features** dialog box appears.

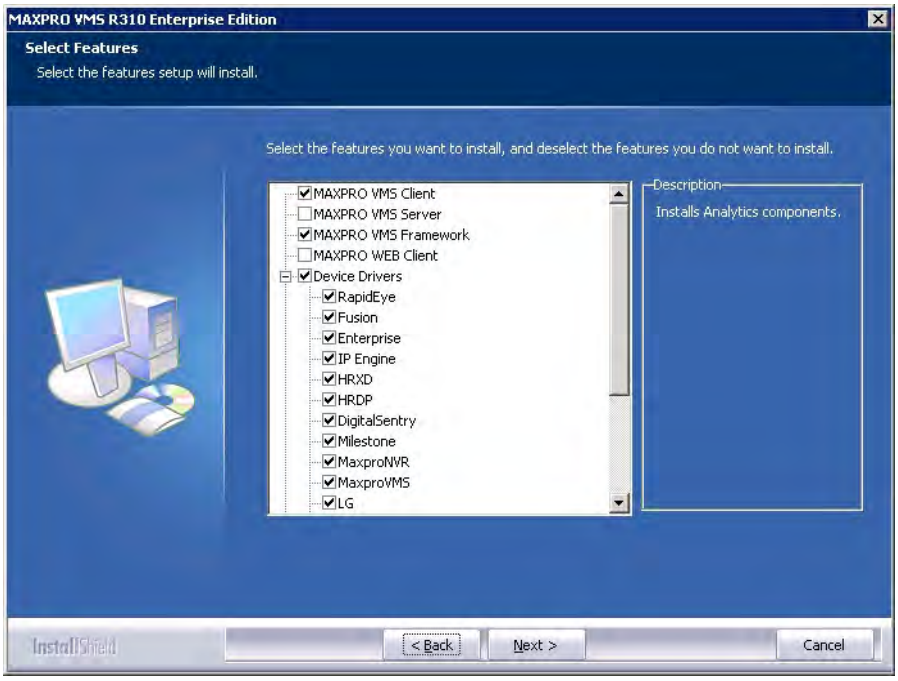


Figure 3-23 Select Features

3. Select **MAXPRO VMS Client**. The **MAXPRO VMS Framework**, **Device Drivers**, and the **Analytics Engine** are selected automatically. Clear the check boxes corresponding to the device drivers that you do not want to install.

Note: If you are installing the drivers in a client PC and later if you upgrade the Client PC to Server PC then the respective driver scripts does not load the configurations in the MAXPRO VMS R310 Viewer. User should run the corresponding script (For example: HRDPUnInstallationScript.sql, PelcoInstallationScript.sql) manually to load the configurations from the **Tools** (Tools\SQLScripts\DVRScripts) folder.

4. Click **Next**. The **MAXPRO VMS Client configuration** dialog box appears.

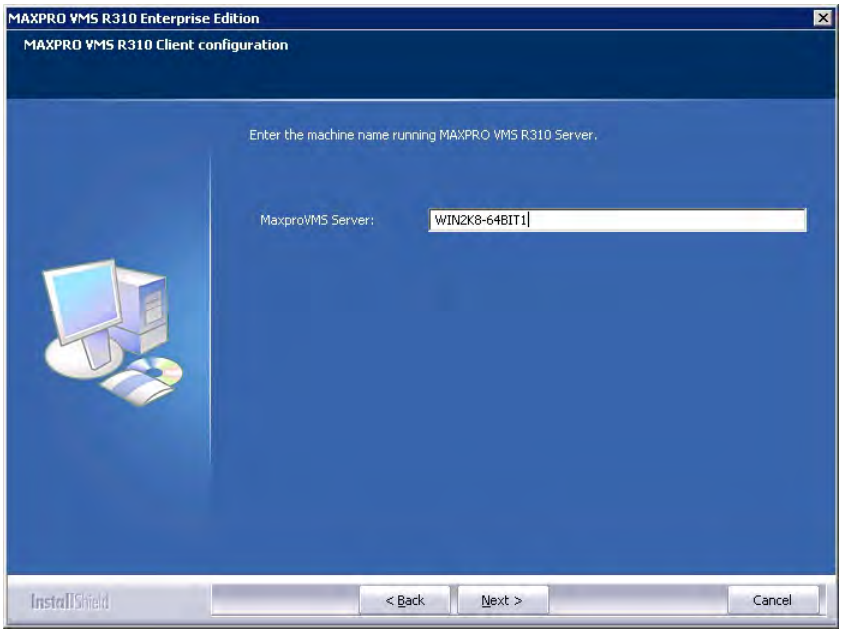


Figure 3-24 MAXPRO VMS Client Configuration

5. In the **MaxproVMS Server** box, type the name of the MAXPRO VMS Server, and then click **Next**. A dialog box asking for confirmation to add the client workstation to MAXPRO VMS database appears.

Note: If the MAXPRO VMS Server is not available, then click **Next**.

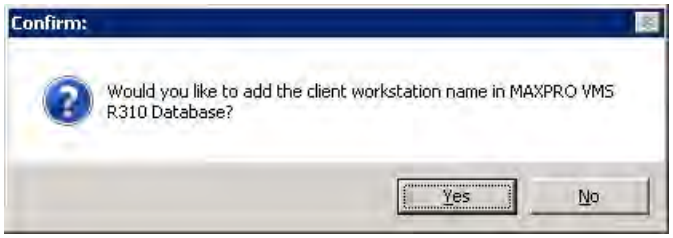


Figure 3-25 Confirmation Message

6. Click **Yes** if you want to add the client workstation name in MAXPRO VMS database. Click **No** if you do not want to add client workstation name in MAXPRO VMS Server Database. If you click **Yes**, the **Database Server Login** dialog box appears.

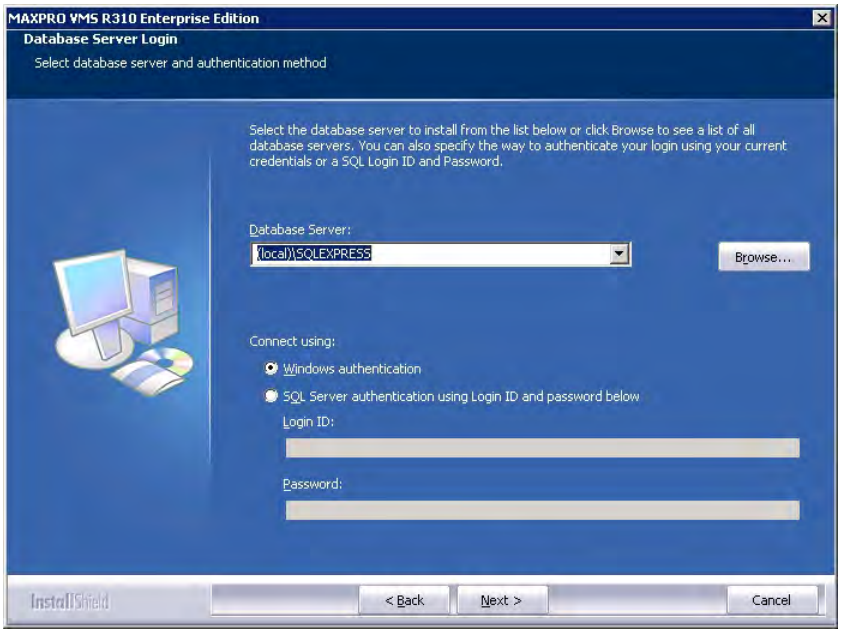

MAXPRO VMS R310 Enterprise Edition
Database Server Login
Select database server and authentication method
Select the database server to install from the list below or click Browse to see a list of all database servers. You can also specify the way to authenticate your login using your current credentials or a SQL Login ID and Password.
Database Server:
(local)\SQLEXPRESS
Browse...
Connect using:
Windows authentication
SQL Server authentication using Login ID and password below
Login ID:
Password:
InstallShield
< Back
Next >
Cancel

Figure 3-26 Database Server Login

7. Click **Browse**, and then select any existing SQL database. You can select the existing SQL database on the same network. If you do not want to select an existing database, proceed to step *step 9*.
8. Select **Connect using** option as **Windows authentication** or **SQL Server authentication using Login ID and password below**.

Note: See *SQL Express 2012 Scenarios* section for various SQL 2012 Scenarios. If you enter an invalid Login ID and Password to connect SQL Server then see *Manual Steps if SQL Connection Fails* section.

---

9. Click **Next**. The **Language selection for analytics application** dialog box appears.

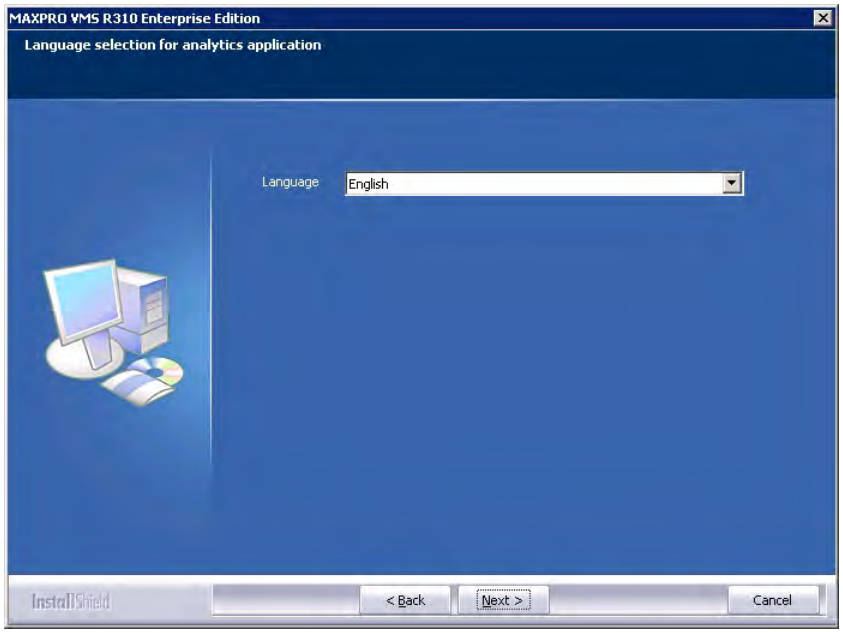


Figure 3-27 Language selection for analytics application

10. From the **Language** drop-down list, select the required language.
11. Click **Next**. The **Start Copying Files** dialog box appears.

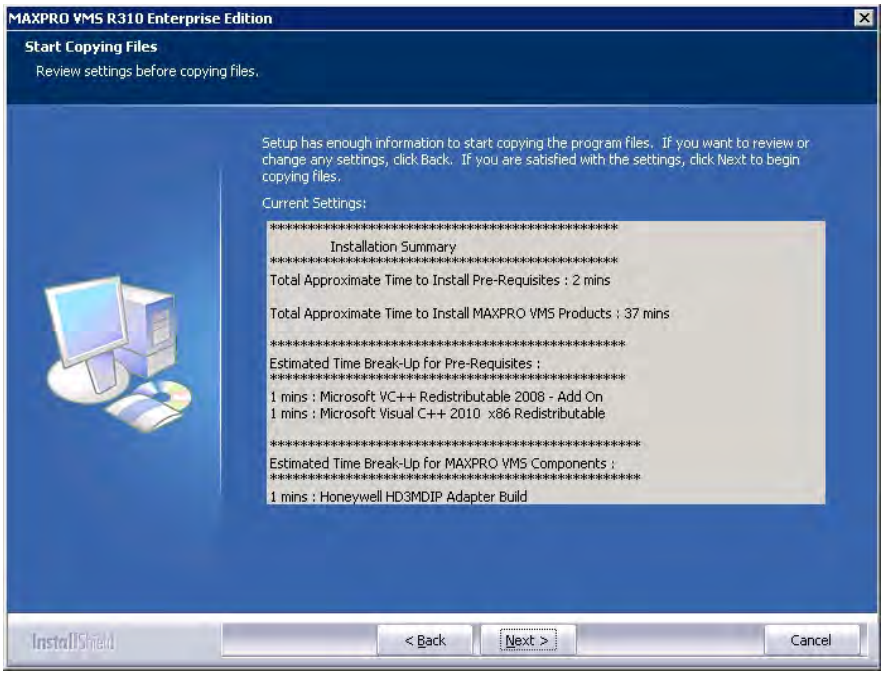

MAXPRO VMS R310 Enterprise Edition
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Installation Summary
Total Approximate Time to Install Pre-Requisites : 2 mins
Total Approximate Time to Install MAXPRO VMS Products : 37 mins
Estimated Time Break-Up for Pre-Requisites :
1 mins : Microsoft VC++ Redistributable 2008 - Add On
1 mins : Microsoft Visual C++ 2010 x86 Redistributable
Estimated Time Break-Up for MAXPRO VMS Components :
1 mins : Honeywell HD3MDIP Adapter Build
InstallShield
< Back
Next >
Cancel

Figure 3-28 Start Copying Files

12. Click **Next**. The MAXPRO VMS client is installed and the **InstallShield Wizard Complete** dialog box appears.

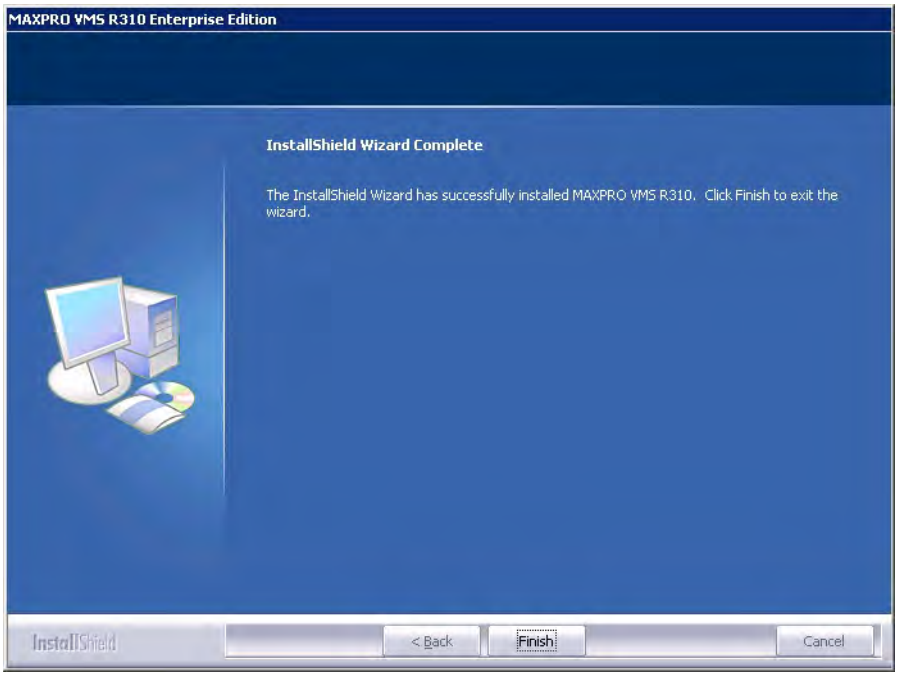

MAXPRO VMS R310 Enterprise Edition
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed MAXPRO VMS R310. Click Finish to exit the wizard.
InstallShield
< Back
Finish
Cancel

Figure 3-29 Install Shield Wizard Complete

13. Click **Finish**. The computer restarts and the installation is complete.

Note: At any point if the R310 installation fails to install the selected component, you can clean the system using the Uninstall Utility and then reinstall the R310 software. See *Cleaning the System*.

RUNNING THE DRIVER SCRIPTS MANUALLY

After installing the drivers in Client PC for example (NVR Driver, Digital Sentry, HRDP, HRXD, VMS in VMS, Milestone, LG, Panasonic, EXACQ, GeViScope, Pelco Endura) If the Client PC is upgraded to Server PC then the respective driver scripts does not load the configurations in the MAXPRO VMS R310 Viewer. User should run the corresponding script manually for example (HRDPUnInstallationScript.sql, PelcoInstallationScript.sql) from the **Tools** (Tools\SQLScripts\DVRScripts) folder.

VIDEO ANALYTICS SERVER INSTALLATION

BEFORE YOU BEGIN

- Ensure that the MAXPRO VMS server is installed.

1. Perform steps 1 through 13 in the section *How to Install MAXPRO VMS*. The **Installation Type** dialog box appears.

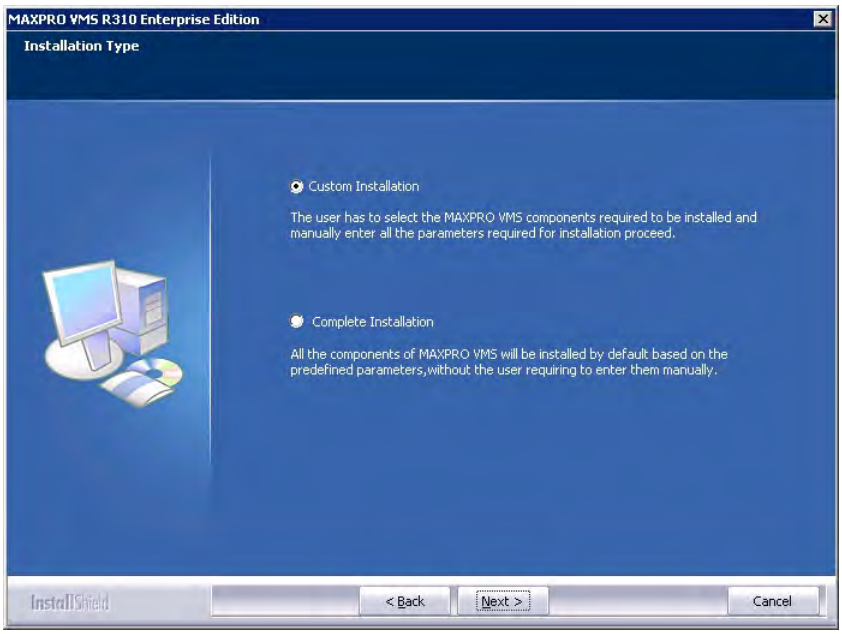

MAXPRO VMS R310 Enterprise Edition
Installation Type
Custom Installation
The user has to select the MAXPRO VMS components required to be installed and manually enter all the parameters required for installation proceed.
Complete Installation
All the components of MAXPRO VMS will be installed by default based on the predefined parameters,without the user requiring to enter them manually.
InstallShield
< Back
Next >
Cancel

Figure 3-30 Installation Type

2. Select **Custom Installation**, and then click **Next**. The **Select Features** dialog box appears.

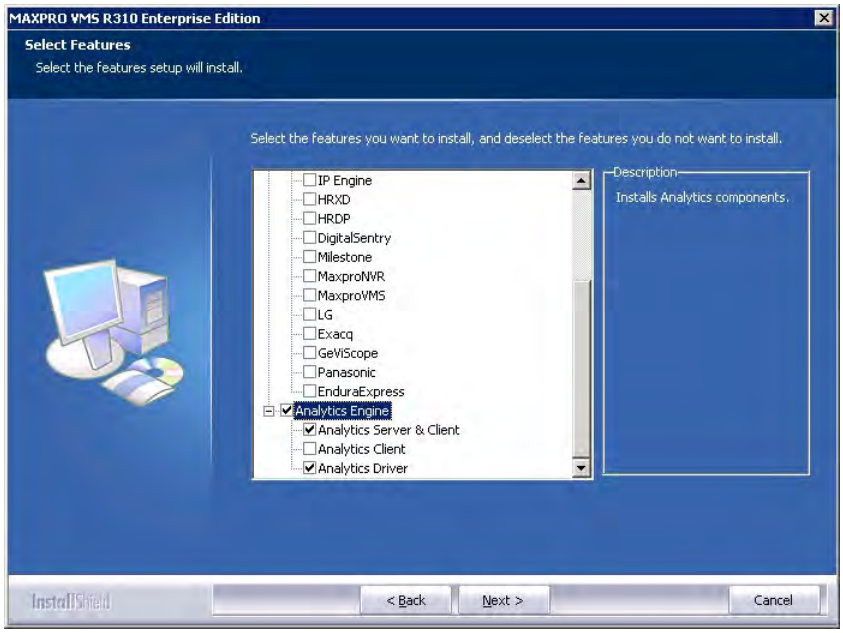


Figure 3-31 Select Features

3. Select **Analytics Engine**, and then click **Next**. The **MAXPRO VMS Client configuration** dialog box appears. Clear the check boxes corresponding to the device drivers which you do not wish to install.

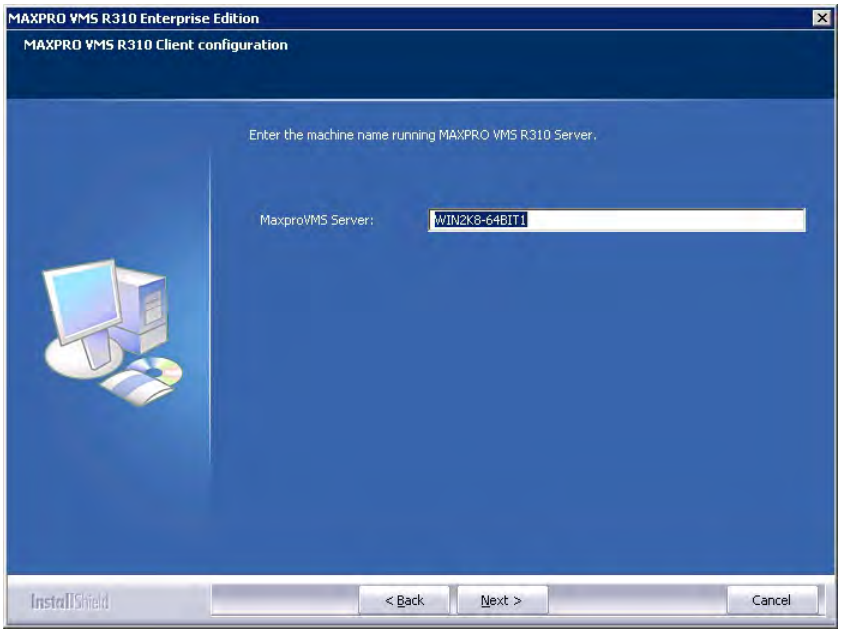


Figure 3-32 MAXPRO VMS Client Configuration

4. In the **MaxproVMS Server** box, type the name of the MAXPRO VMS Server, and then click **Next**. The **Database Server Login** dialog box appears.

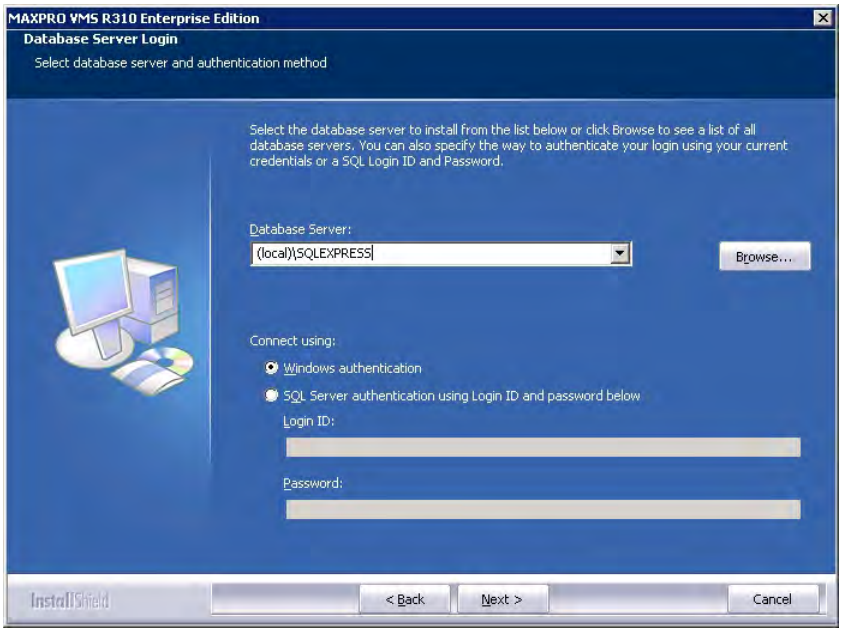

MAXPRO VMS R310 Enterprise Edition
Database Server Login
Select database server and authentication method
Select the database server to install from the list below or click Browse to see a list of all database servers. You can also specify the way to authenticate your login using your current credentials or a SQL Login ID and Password.
Database Server:
(local)\SQLEXPRESS
Browse...
Connect using:
Windows authentication
SQL Server authentication using Login ID and password below
Login ID:
Password:
InstallShield
< Back
Next >
Cancel

Figure 3-33 Database Server Login

5. Click **Browse**, and then select any existing SQL database. You can select the existing SQL database on the same network. If you do not want to select an existing database, proceed to step *step 7*.

6. Select **Connect using** option as **Windows authentication** or **SQL Server authentication using Login ID and password below**.

Note: See *SQL Express 2012 Scenarios* for various SQL 2012 Scenarios. If you enter an invalid Login ID and Password to connect SQL Server then see *Manual Steps if SQL Connection Fails*.

7. Click **Next**. The **Language selection for analytics application** dialog box appears.

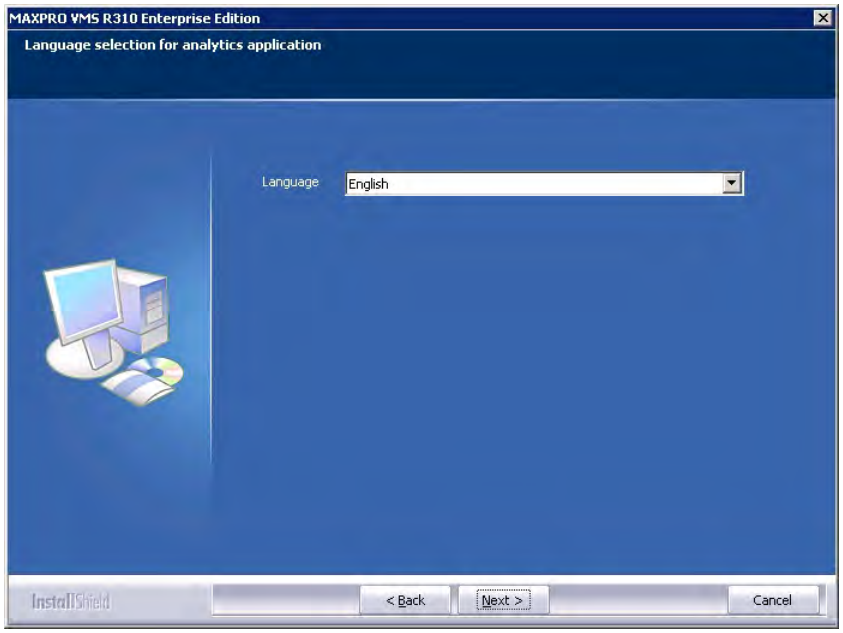


Figure 3-34 Language Selection for Analytics Application

8. Click **Next**. The **Start Copying Files** dialog box appears.

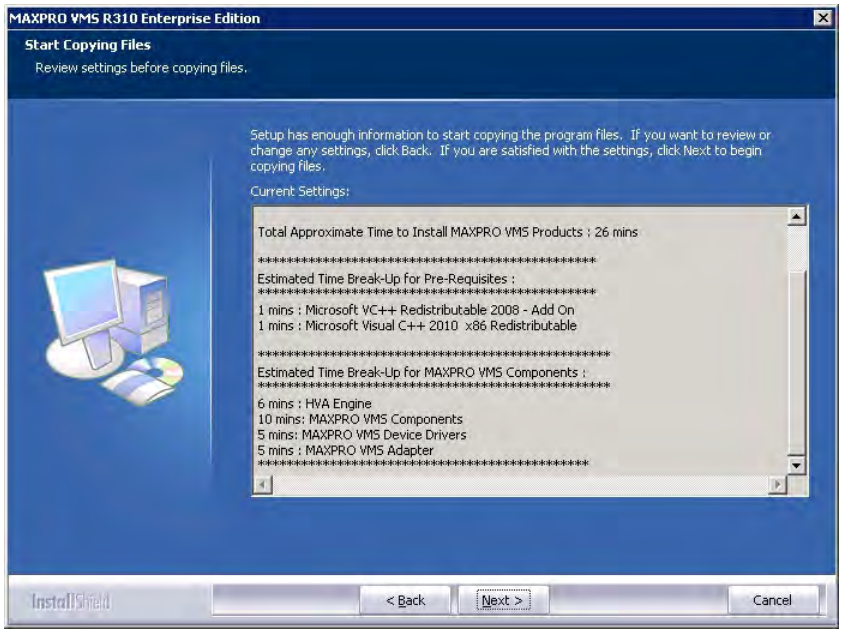

MAXPRO VMS R310 Enterprise Edition
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Total Approximate Time to Install MAXPRO VMS Products : 26 mins
Estimated Time Break-Up for Pre-Requisites :
1 mins : Microsoft VC++ Redistributable 2008 - Add On
1 mins : Microsoft Visual C++ 2010 x86 Redistributable
Estimated Time Break-Up for MAXPRO VMS Components :
6 mins : HVA Engine
10 mins: MAXPRO VMS Components
5 mins: MAXPRO VMS Device Drivers
5 mins : MAXPRO VMS Adapter
InstallShield
< Back
Next >
Cancel

Figure 3-35 Start Copying Files

9. Click **Next**. The video Analytics is installed and the **InstallShield Wizard Complete** dialog box appears.

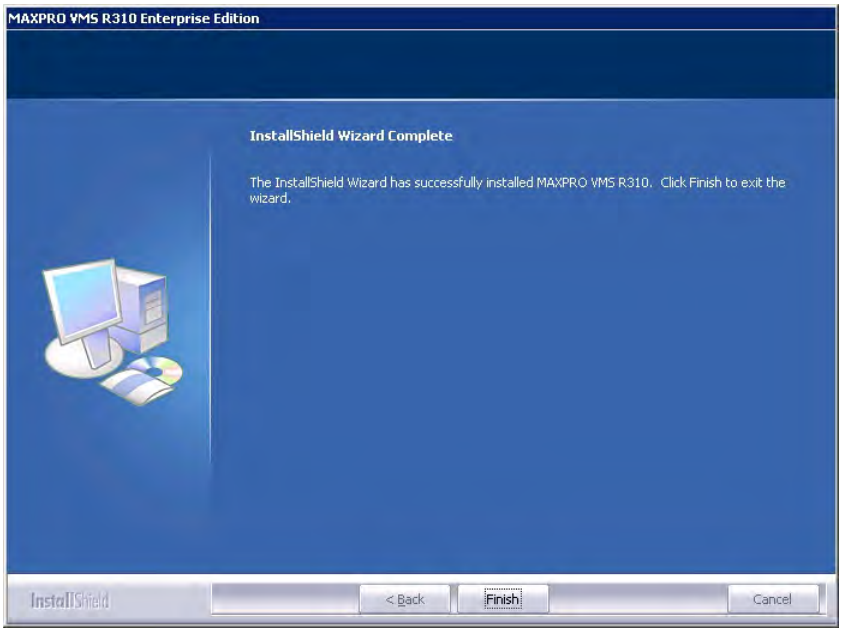

MAXPRO VMS R310 Enterprise Edition
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed MAXPRO VMS R310. Click Finish to exit the wizard.
InstallShield
< Back
Finish
Cancel

Figure 3-36 Install Shield Wizard Complete

10. Click **Finish**. Your computer restarts and the installation is complete.

Note: At any point if the R310 installation fails to install the selected component, you can clean the system using the Uninstall Utility and then reinstall the R310 software. See *Cleaning the System*.

AFTER INSTALLING MAXPRO VMS R310

The Loopback Adapters enables to stabilize the network connection in case of any network disconnect momentarily. The loopback adapters are required in a site to stabilize the network communication. In addition, these are recommended for MVMS servers. After installing the MAXPRO VMS, you must configure the Microsoft Loopback Adapter.

To configure the Microsoft Loopback Adapter

1. Right-click **My Network Places**, and then select **Properties**.
2. Locate the LAN or High-Speed Internet connection that has a device name of Microsoft Loopback Adapter, right-click, and then select **Properties**. The **Local Area Connection Properties** dialog box appears.
3. Select **Internet Protocol (TCP/IP)**, and then click **Properties**. The **Internet Protocol (TCP/IP) Properties** dialog box appears.
4. Select **Use the following IP address**.
5. In the **IP address** box, type the IP address between the range of 10.0.0.0 to 10.255.255.255 or 192.168.0.0 to 192.168.255.255. The subnet mask 255.255.255.0 appears in the **Subnet mask** box. Do not set a value for **Default gateway**
6. Click **OK**.

REMOVING THE MAXPRO VMS R310 SOFTWARE

You can remove the MAXPRO VMS R310 completely or some of it's components as per your requirements.

BEFORE YOU BEGIN

1. Stop Trinity Analytics Services.
   a. Choose **Start**>**Run**, and then type **services.msc**. The **Services** window appears.
   b. Right-click **Trinity Analytics Service**, and then select **Stop**.
2. Stop Trinity Services.
   a. Choose **Start**>**Run**, and then type **services.msc**. The **Services** window appears.
   b. Right-click **TrinityContoller**, and then select **Stop**.
   c. Right-click **TrinityServer**, and then select **Stop**.

To remove MAXPRO VMS R310 completely

1. Insert the MAXPRO VMS R310 setup DVD in the DVD drive, browse to the MAXPRO VMS R310 setup folder, and then double-click **Setup. exe** or Go to the MAXPRO VMS R310 setup folder in your computer, and then double-click **Setup. exe**. The **Setup Type** dialog box appears.

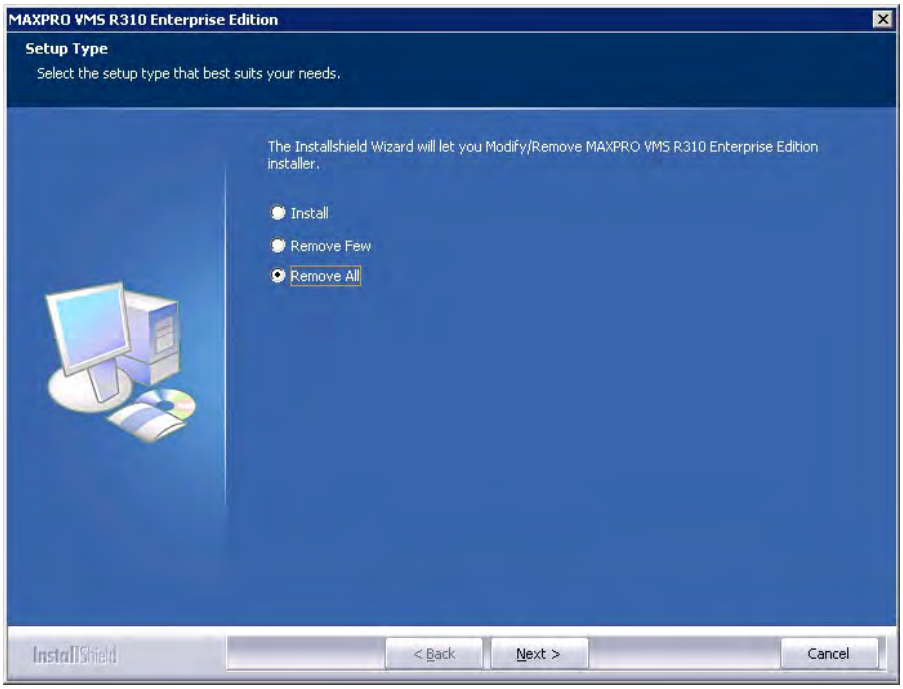

MAXPRO VMS R310 Enterprise Edition
Setup Type
Select the setup type that best suits your needs.
The Installshield Wizard will let you Modify/Remove MAXPRO VMS R310 Enterprise Edition installer.
Install
Remove Few
Remove All
InstallShield
< Back
Next >
Cancel

Figure 3-37 Setup Type

2. Select **Remove All**, and then click **Next**. The following confirmation message appears.

Figure 3-38 Confirmation Message

3. Click **Yes**. The **Restoring Trinity Database** dialog box appears.

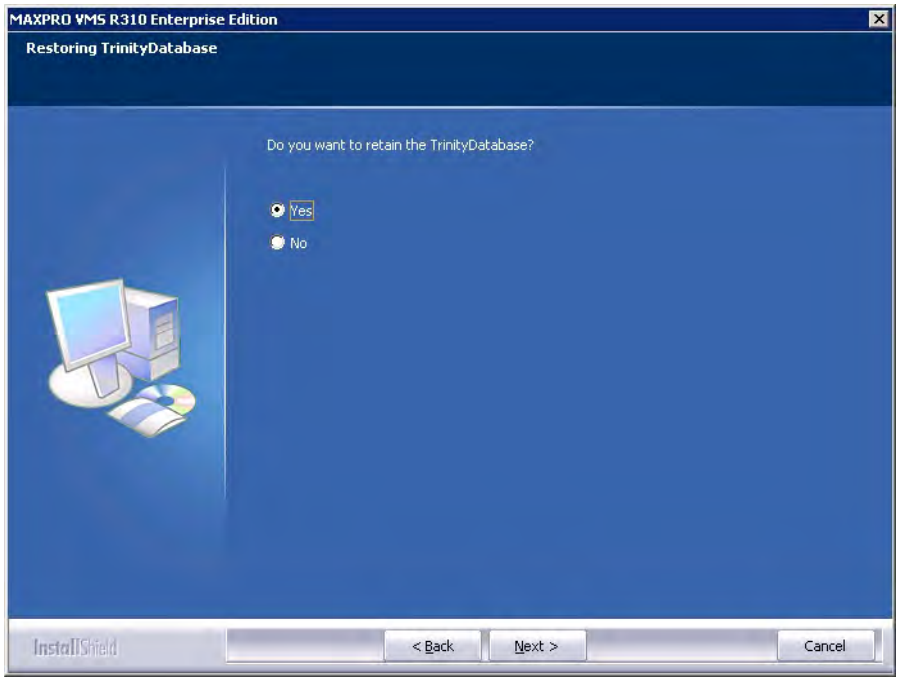


Figure 3-39 Restoring Trinity Database

4. Click **Yes** to retain the Trinity database and click **No** to delete the Trinity database. The **Restoring Analytics Database** dialog box appears.

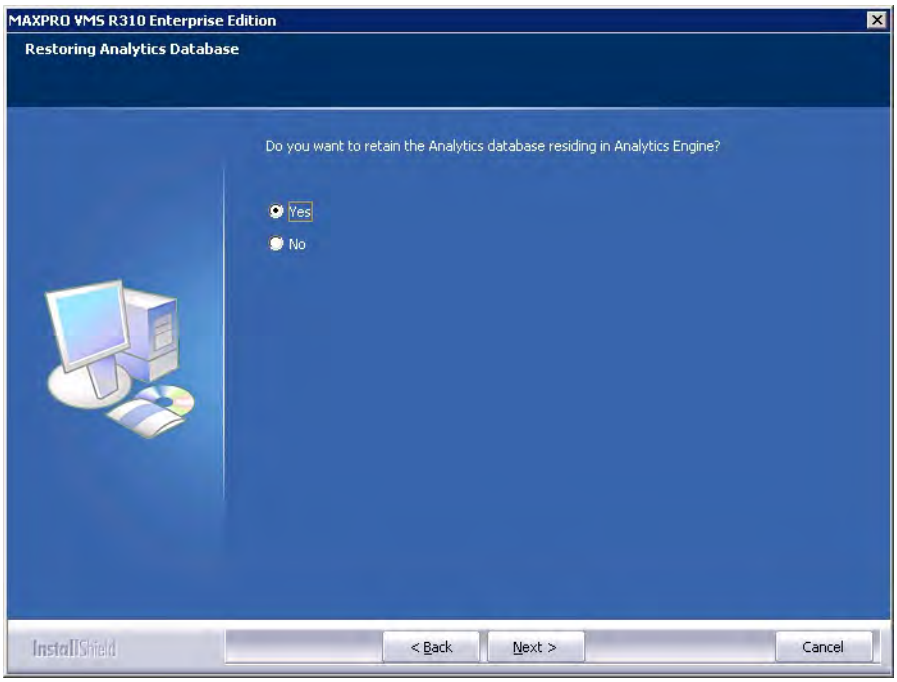


Figure 3-40 Restoring Analytics Database

5. Click **Next**. The MAXPRO VMS R310 is removed completely and **Uninstall Complete** dialog box appears.

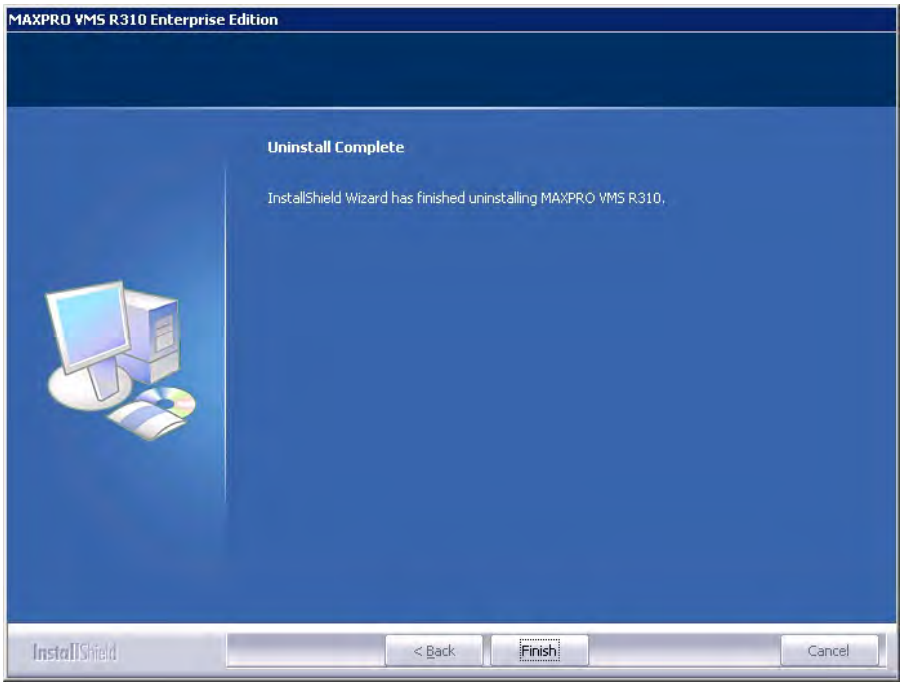


Figure 3-41 Uninstall Complete

6. Click **Finish**. You are prompted to reboot the computer.

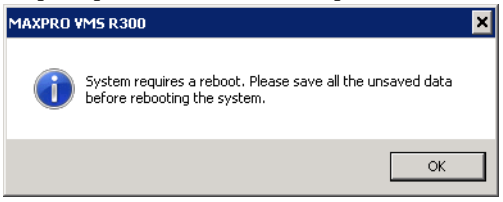


Figure 3-42 Prompt to remove few components

7. Click **OK**.

To remove few components

1. Insert the MAXPRO VMS R310 setup DVD in the DVD drive, browse to the MAXPRO VMS R310 setup folder, and then double-click **Setup. exe** or go to the MAXPRO VMS R310 setup folder in your computer, and then double-click **Setup. exe**.

2. The **Setup Type** dialog box appears.

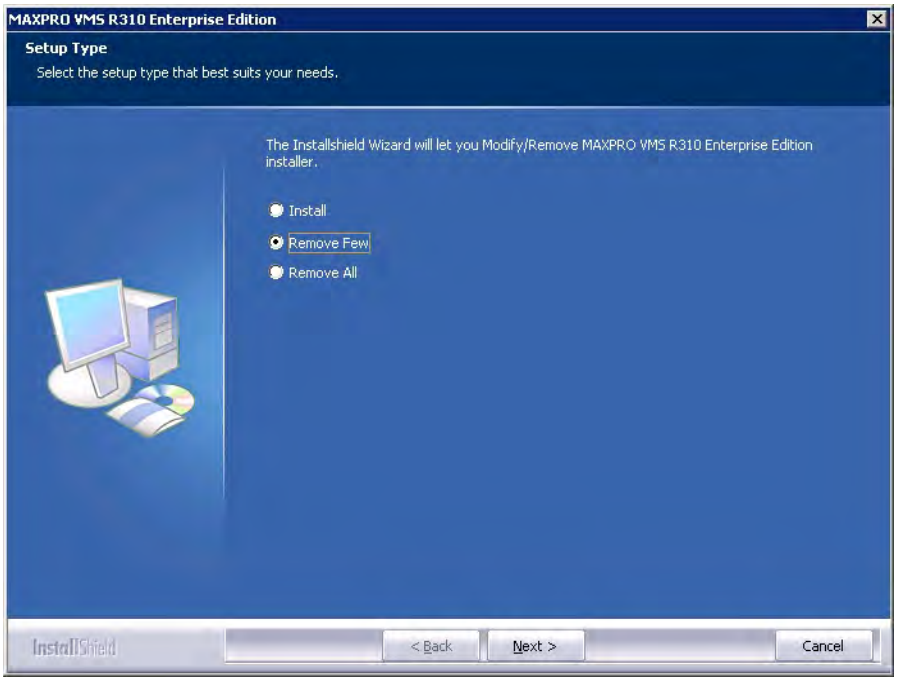

MAXPRO VMS R310 Enterprise Edition
Setup Type
Select the setup type that best suits your needs.
The Installshield Wizard will let you Modify/Remove MAXPRO VMS R310 Enterprise Edition installer.
Install
Remove Few
Remove All
InstallShield
< Back
Next >
Cancel

Figure 3-43 Setup Type

3. Select **Remove Few**, and then click **Next**. The **Select the features** dialog box similar to the following figure appears.

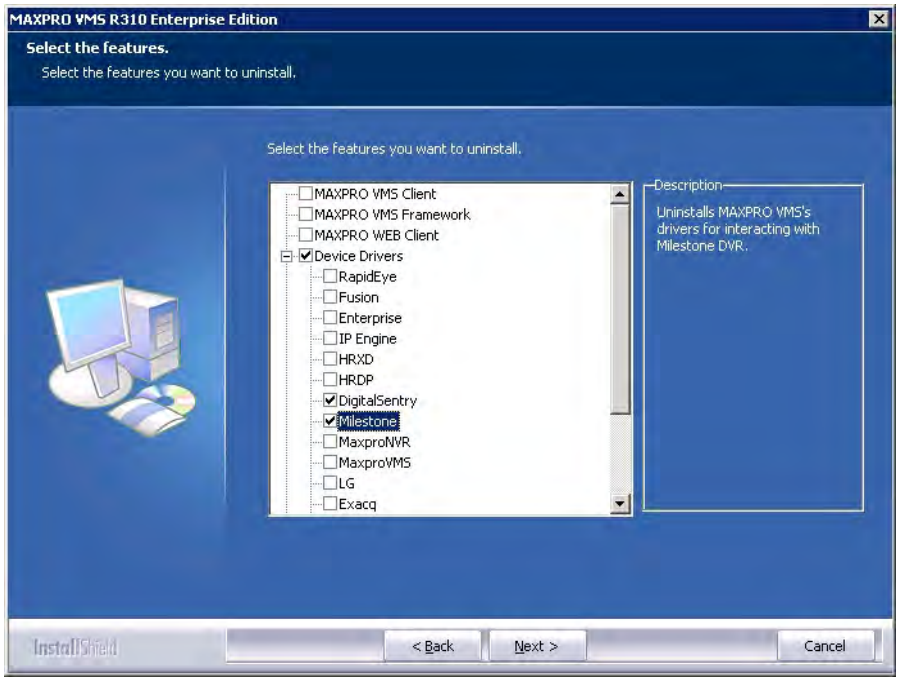


Figure 3-44 Select the Features

4. Select the components that you wish to remove by selecting the respective check boxes. If you select the Analytics driver to uninstall and click **Next** then **Restoring Analytics Database** figure appears as shown below.

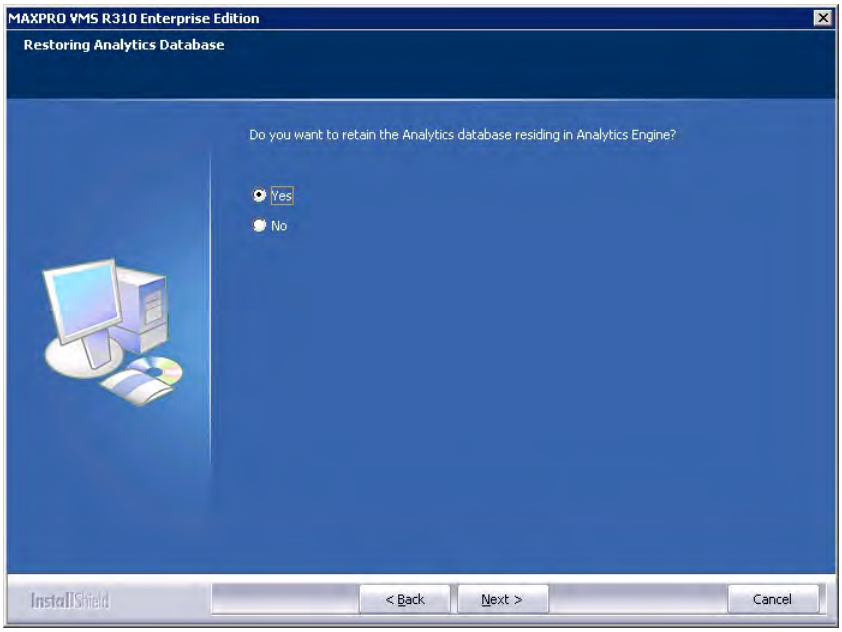


Figure 3-45 Restoring Analytics Database

5. Click the required option to retain the Analytics database residing in Analytics Engine, and then Click **Next**. The **Start Copying Files** dialog box similar to the following figure appears.

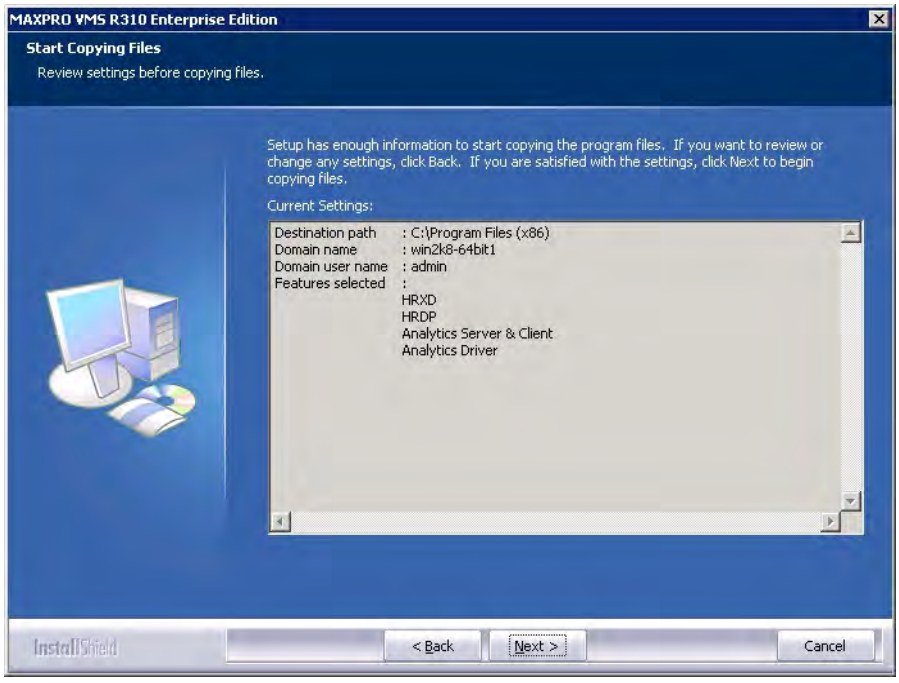
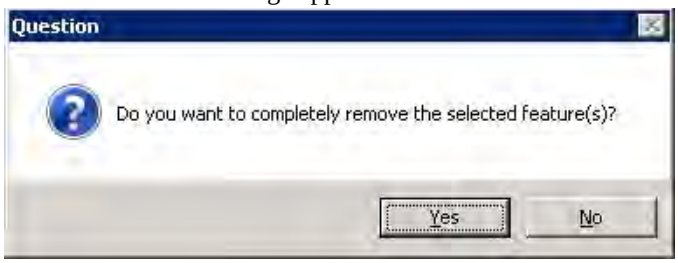

MAXPRO VMS R310 Enterprise Edition
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Destination path : C:\Program Files (x86)
Domain name : win2k8-64bit1
Domain user name : admin
Features selected :
HRXD
HRDP
Analytics Server & Client
Analytics Driver
InstallShield
< Back
Next >
Cancel

Figure 3-46 Start Copying Files

6. Click **Next**. A confirmation message appears as shown below.



7. Click **Yes** to proceed. The selected components of the MAXPRO VMS R310 are removed and the **Uninstall Complete** dialog box appears.

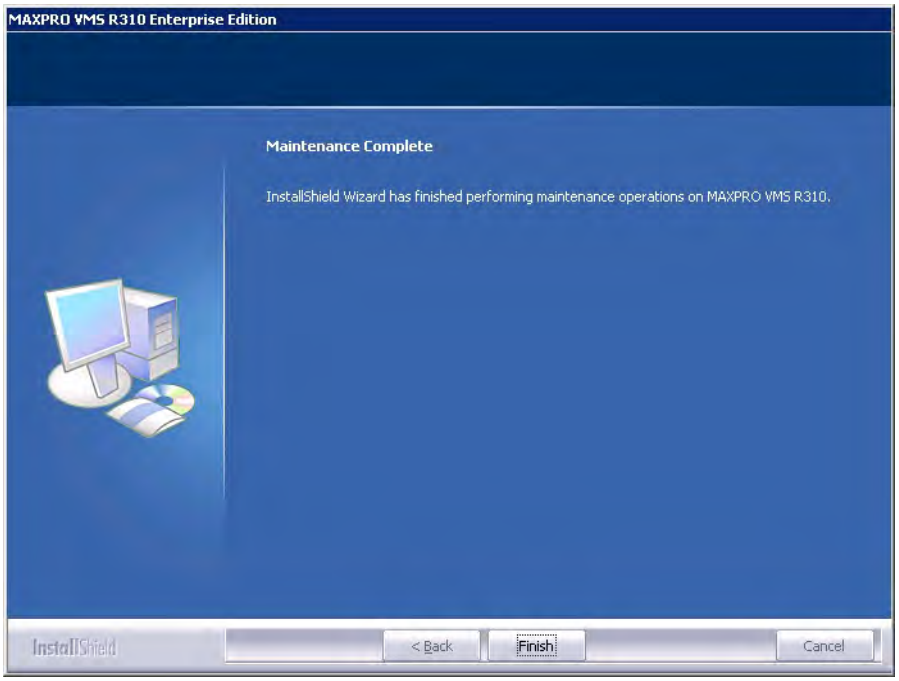


Figure 3-47 Uninstall Complete

8. Click **Finish**. You are prompted to reboot the computer.

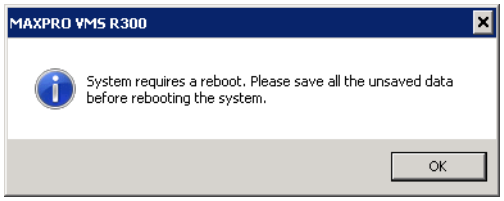


Figure 3-48 Prompt to reboot the computer

9. Click **OK**.

Note: You can remove the required component using the **Add or Remove Programs** in Windows. However, Honeywell recommends to follow the above mentioned steps to remove MAXPRO VMS R310 components.

AFTER REMOVING MAXPRO VMS R310

After removing MAXPRO VMS, you must remove Microsoft Loopback Adapter manually.

To remove loopback adapter

1. Right-click **My Computer**, and then select **Properties**. The **System Properties** dialog box appears.

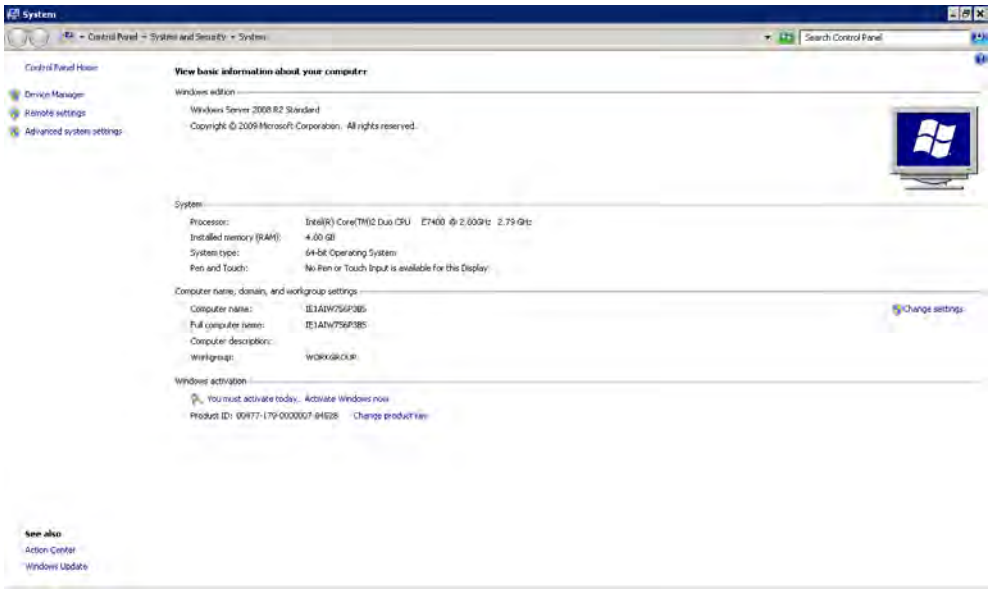


Figure 3-49 System Properties

2. Click **Device Manager**. The **Device Manager** screen appears.

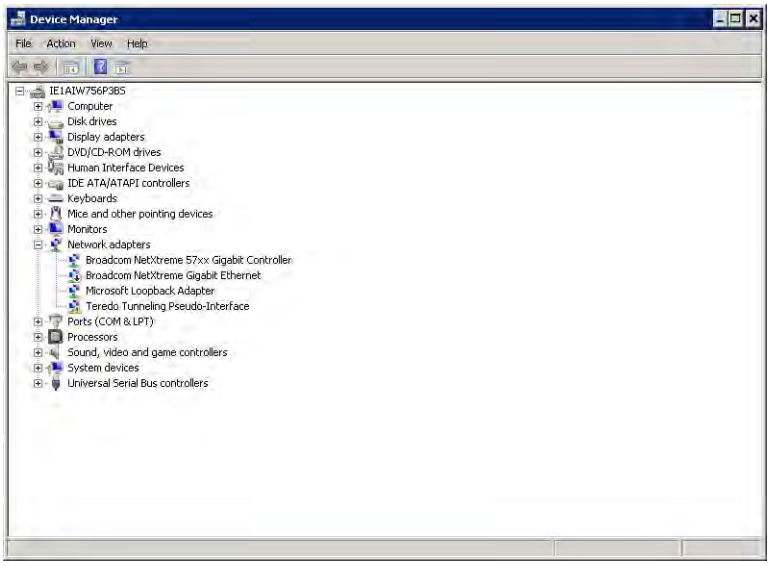


Figure 3-50 Device Manager

3. Expand the **Network Adapte**r branch, right-click **Microsoft Loopback Adapter**, and then select **Uninstall**. The **Confirm Device Removal** dialog box appears.

Figure 3-51 Confirm Device Removal

4. Click **OK**.

SQL EXPRESS 2012 SCENARIOS

The following table depicts the various scenarios of SQL Express 2012 while installing the VMS R310.

Table 2-4 SQL Express 2012 Scenarios

R310 Installation Scenarios	**SQL 2012 SP1 Express Supported OS**	**SQL 2012 SP1 Express Unsupported OS (If operating system service pack is not installed then)**
If you choose for Fresh installation and Server is Selected without SQL instance.	Installs the SQL Express 2012 SP1 and Create Database.	It displays an error message as shown below. MAXPRO VMS R310 For Windows 7 or 2008 R2,Service Pack 1 or later is required for installing SQL Express 2012 SP1.Please download and install SQL Express 2008 R2 and start the installation again.Installation will abort now. OK
If you choose for Fresh installation and Server is selected + local SQL Standard Edition instance is selected.	Creates the Database in the selected SQL Standard instance of any version.	Create Database in the selected SQL Standard instance of any version.
If you choose for Fresh installation and Server is Selected + local SQL Express 2008 R2.	Installs the SQL 2008 R2 SP1 (If Required) and Upgrade to SQL Express 2012 SP1 + Upgrade Database.	Create Database in SQL Express 2008 R2 instance.
If you choose for Fresh installation and Server is Selected + local SQL Express 2012 SP1.	Creates the Database.	This scenario is not possible.
If you choose for Fresh installation and Server is selected + Remote SQL.	Creates the Database.	Create Database.

If you choose for Fresh installation and Client is selected.	Client components will be installed.	Client components will be installed.
If you Upgrade from R300 Server to R310.	Upgrades to SQL Express 2012 SP1, if R300 has SQL 2008 R2 available and upgrade the Database.	Only Upgrade the Database (SQL will not be upgraded).
If you Upgrade from R300 Client to R310.	Upgrades the client.	Upgrade the client.
If you Upgrade from R300 Client and Server is selected in R310 with no SQL instance.	Installs the SQL Express 2012 SP1 and create the Database.	It displays an error message as shown below. MAXPRO VMS R310 For Windows 7 or 2008 R2,Service Pack 1 or later is required for installing SQL Express 2012 SP1.Please download and install SQL Express 2008 R2 and start the installation again.Installation will abort now. OK

CLEANING THE SYSTEM

The Uninstall Utility allows you to clean all the installed R310 components in the system. Uninstall Utility is available in the installation path of VMS R310 under **Tools** folder. It contains the Database Files, SQL Scripts that allows you to clean the specific component. After you clean the system you need to reinstall the R310 software.

Note: Use this utility, if uninstallation is not done properly.

To access and run the utility

- Browse the MAXPRO VMS R310 installation path for example **C:\Program Files (x86)\Honeywell\TrinityFramework\Tools\UninstallUtility** folder and double-click the **UninstallUtility.exe**. MAXPRO VMS Uninstall Utility window appears and displays the progress of cleaning.

ADDING THE RIGHTS TO THE LOCAL ADMINISTRATOR ACCOUNT

After installing the SQL 2008 Express, the Installation fails to start the SQL service on Windows 2008 R2 machine. The following error message is displayed in the Event viewer:

FileMgr::StartLogFiles: Operating system error 2 (The system cannot find the file specified.) occurred while creating or opening file 'e:\sql10_main_t.obj.x86fre\sql\mkmastr\databases\objfre\i386\MSDBLog.ldf'. Diagnose and correct the operating system error, and retry the operation.

Cause

This issue is by design and occurs because of the account that is running SQL Server Setup does not have one or all of the following rights:

- The right to back up files and directories,
- The right to manage auditing and the security log and
- The right to debug programs.

Resolution

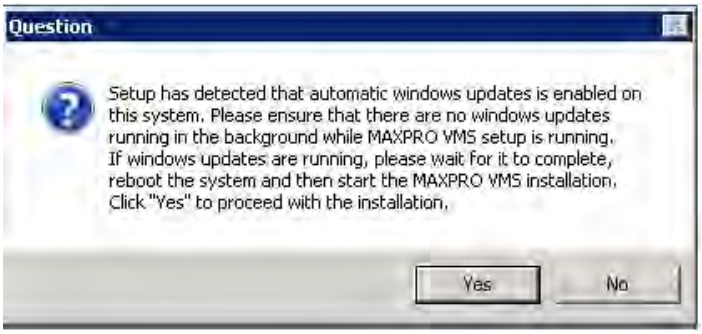
The Setup user account requires the above default user rights for the Setup to be completed successfully.

To add the rights to the local administrator account

1. Log on to the computer as an administrator.
2. Click **Start >Run**, the Run command window appears.
3. Type **Control admintools**, and then click **OK**.
4. Double-click **Local Security Policy**, the **Local Security Settings** dialog box appears.
5. Click **Local Policies**, double-click **User Rights Assignment**, and then double-click **Backup Files and Directories**. The **Backup Files and Directories Properties** dialog box appears.
6. Click **Add User** or **Group**. The **Select User or Groups** dialog box appears.
7. Type the user account that is being used for setup, and then click **OK** two times.
8. Repeat steps 1 through 7 for the other two policies that are mentioned in the "Cause" section.
9. On the File menu, click Exit to close the Local Security Settings dialog box.

WINDOWS UPDATES

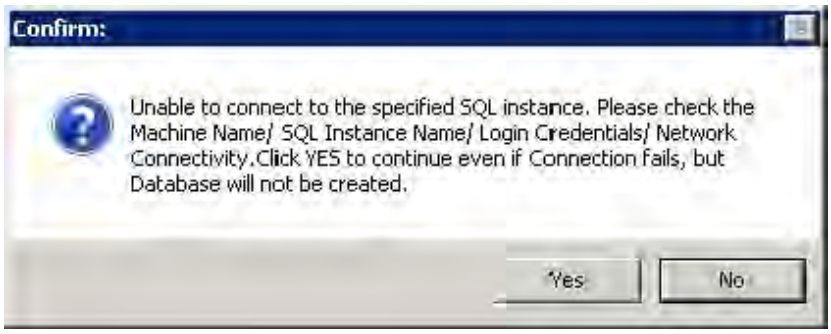
If the windows updates feature is enabled in any of the operating system then while installing MAXPRO VMS R310 the following message is displayed:


Question
Setup has detected that automatic windows updates is enabled on this system. Please ensure that there are no windows updates running in the background while MAXPRO VMS setup is running. If windows updates are running, please wait for it to complete, reboot the system and then start the MAXPRO VMS installation. Click "Yes" to proceed with the installation.
Yes
No

User is recommended to wait until the windows updates are installed and then reinstall the VMS R310 software.

MANUAL STEPS IF SQL CONNECTION FAILS

If the SQL Connection fails, because of invalid credentials entered in the SQL dialog box or for various reasons for example network problem, then the install wizard displays the following message:


Confirm:
Unable to connect to the specified SQL instance. Please check the Machine Name/ SQL Instance Name/ Login Credentials/ Network Connectivity.Click YES to continue even if Connection fails, but Database will not be created.
Yes
No

If you click **Yes** and complete the installation then you must perform the following manual steps to work with the application.

1. Update the config files with SQL server and windows/SQL authentication connection details. See *To update the config files* .
   - Trinity.SystemServices.exe.config
   - Trinity.ServiceHost.Scheduler.exe.config
2. Add the registry entries. See *To add the registry entries* .
3. Execute the create_trinity_db_R310.bat file.

TO UPDATE THE CONFIG FILES

1. Browse **<<INSTALL_PATH>>\Honeywell\TrinityFramework\Bin\Trinity.SystemServices.exe.config** and then double-click the **Trinity.SystemServices.exe.config** file.

Note: <<INSTALL_PATH>> should be substituted with the actual path selected during installation.

---

2. For SQL Authentication:
   a. In the **User ID** field, type the user ID. The default user name is "**sa**"
   b. In the **Password** field, type the password. The default user name is "**Password1**"
   c. In the **Data Source** field, type "**.\SQLEXPRESS**"
3. For Windows authentication:
   - In the **Server** field, type **.\SQLExpress**.
4. Similarly browse **<<INSTALL_PATH>>\Honeywell\TrinityFramework\Bin\Trinity.ServiceHost.Scheduler.exe.config** and then double-click the **Trinity.ServiceHost.Scheduler.exe.**config file.
5. Repeat the steps 2 and 3 to update the config file with SQL Authentication and Windows authentication.

TO ADD THE REGISTRY ENTRIES

1. Access the registry: **[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Honeywell\TrinityFramework].**
2. Update the registry value names with the SQL instance details which you are planning to use:

Registry value Name	Value
TRINITYDATABASEPATH=	"c:\Program Files\Microsoft SQL Server\MSSQL11.SQLEXPRESS64BIT\MSSQL\DATA" **Note:** TRINITYDATABASEPATH should be replaced with the path fetched from the registry, apart from the selected SQL instance name's DATA path where mdf and ldf files will be stored.
TRINITYDBSERVER=	"admin-PCVMS\SQLEXPRESS64BIT"

3. Similarly access the registry: **[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Honeywell\TrinityFramework\DatabaseDetails]**
4. Update the registry value names with the SQL instance details which you are planning to use:

Registry value Name	Value
"PCNAME"=	"admin-PCVMS"
"CONNECTIONSTRING"=	"Persist Security Info=False;User ID=sa;Password=Password1;Initial Catalog=TrinityDatabase;Data Source=admin-PCVMS\SQLEXPRESS64BIT"
"DATABASEPATH"=	"c:\Program Files\Microsoft SQL Server\MSSQL11.SQLEXPRESS64BIT\MSSQL\DATA" **Note:** DATABASEPATH should be replaced with the path fetched from the registry, apart from the selected SQL instance name's DATA path where mdf and ldf files will be stored.
"INSTANCENAME"=	"SQLEXPRESS64BIT"
"PASSWORD"=	"9bvmw??›¨"
"TRINITYDBSERVER"=	"admin-PCVMS\SQLEXPRESS64BIT"
"SQLMODE"=	"1"
"USER"=	"sa"
“TRINITYDATABASEPATH"=	"c:\Program Files\Microsoft SQL Server\MSSQL11.SQLEXPRESS64BIT\MSSQL\DATA"

Note: If you are using 32 bit Operating System then you should not access the **Wow6432** Node.

EXECUTING THE CREATE_TRINITY_DB_R310.BAT FILE

Prerequisites

Ensure that you have updated the config files and added the registry entries as explained in *To update the config files* and *To add the registry entries* .

To execute the "create_trinity_db_R310.bat" file

1. Browse the **"create_trinity_db_R310.bat"** file in the **Tools** folder available in the setup media.
2. Right-click the "**create_trinity_db_R310.bat"** file and then select **Run as Administrator**. If you have selected SQL authentication then the execution prompts for SQL server name, windows authentication option or SQL authentication option, user name and password.
3. Provide the necessary details. The TrinityDatabase is created.

4

CONFIGURING DEVICES AND SETTING UP A SITE

Configuring MAXPRO VMS involves setting up the application to perform surveillance operations. This is the most important phase for commissioning MAXPRO VMS as it involves organizing devices, users, and roles associated to them.

BEFORE YOU BEGIN

- Ensure that you have completed MAXPRO VMS server and client hardware setup and software installation.
- Configure the firewall settings as mentioned in the Firewall Settings section.

FIREWALL SETTINGS

See the following tables while configuring the firewall settings for MAXPRO VMS.

SERVER SIDE CONFIGURATION

The following server side application executable files need to be excluded with the following port configuration.

Application	Description	Port	Type	Port Number
Trinity.SystemServices.exe	Server Operations	TCP	Custom	20007
	Controller	TCP	Custom	26026
	DNS Server	TCP	Custom	53
Trinity.Controller.exe	Controller Operations	TCP	Custom	26026
Scheduler	Scheduler Operations	TCP	Custom	20010

RECORDERS

	Ports	Port	Type	Port Number
Programs	DCOM Services	TCP	Standard	135
	File and Printer Sharing	TCP	Standard	139, 445
		TCP	Standard	137, 138
	DNS Server	TCP	Standard	53
	Client and Server Communication	TCP	Standard	80
Applications	Application Description	Executable File Name		
	IP Engine Camera Service	HWDVSCameraManager.exe		
	IP Engine COM Host Service	System32\DllHost.exe		
	IP Engine Event Service	HWDVSEventServer.exe		
	IP Engine Integrity Service	HWDVSDBSIntegrity.exe		
	IP Engine Multi Monitor Coordinator	HWDVSMonitoeCoOrdinator.ex		
Services	Application Description	Executable File Name		
	IP Engine Camera Service	HWDVSCameraManager.exe		
	IP Engine COM Host Service	System32\DllHost.exe		

OTHER RECORDERS

Recorder Name	Port	Type	Port Number
Fusion	TCP	Custom	4000
RapidEye	TCP	Custom	10000
Enterprise	TCP	Custom	2377
	TCP	Custom	2367
	TCP	Custom	2703
	TCP	Custom	1056
HRXD	TCP	Custom	8016
	TCP	Custom	10019
HRDP	TCP	Custom	4000

Recorder Name	Port	Type	Port Number
Digital Sentry	TCP	Custom	18772
MileStone	TCP	Custom	1237
MAXPRO NVR	TCP	Custom	20007
	TCP	Custom	26026
	TCP	Custom	10000

CLIENT CONFIGURATION

Application Name	Purpose	Type	Port Number
MMShell.Exe	Server Connection	Custom	20007
	Rendering Connection	Custom	20009
	Controller	Custom	26026
	DNS Server	Standard	53
Trinity.RenderingServer.exe	Client Connection	Custom	20007
	DNS Server	Standard	53

ULTRAKEY

To avoid UltraKey device from going offline on a firewall enabled environment, please allow the following in the firewall rules.

- ICMP 'echo-request' (type 8) packets out.
- ICMP 'echo-reply' (type 0) packets in.

CONFIGURING MAXPRO VMS

You can configure the MAXPRO VMS using the **Configurator** tab in the user interface. The navigation area inside the **Configurator** tab helps you to configure devices, groups, and manage users and roles.

To go to configurator tab

1. Double-click the icon on your desktop. The **Log On** dialog box appears.

Figure 4-1 MAXPRO VMS Log on

2. In the **Username** box, type the user name. The default user name is “admin”.
3. In the **Password** box, type the password. The default password for the default user name “admin” is “trinity”.
4. Click . The **Viewer** tab appears by default.

5. Click **Configurator** tab. The **Configurator** screen appears.

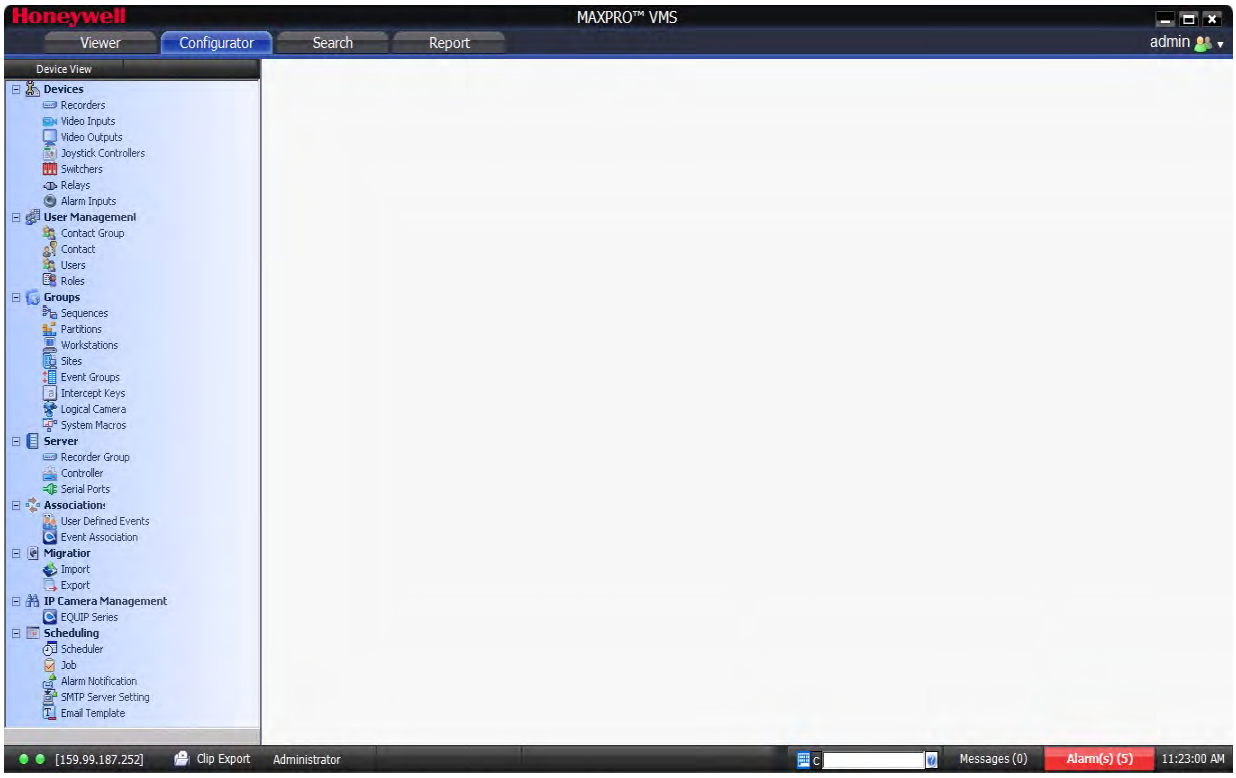


Figure 4-2 Configurator tab

SETTING UP A SITE USING CONFIGURATOR

A site enables you to monitor the activities in an area. Setting up a site involves adding and configuring the hardware devices, defining the users, partitions, recorder groups and event groups.

Setting up a site involves the following:

ADDING SITES

A default site is added when you install MAXPRO VMS. You can use the default site and associate the hardware devices to it. You can also create new sites. See *Site* for more information.

ADDING WORKSTATIONS

Workstations are client computers in which the MAXPRO VMS user interface is installed. The users can perform actions such as monitoring a site, generating reports, searching for video recording, and configuring (add, update, and delete) devices from these workstations. See *Workstations* for more information.

ADDING PARTITIONS

A partition is a logical grouping of recorders, cameras, switchers, and monitors in a site. A default partition is added when you install MAXPRO VMS. You can associate the default partition to cameras and recorders or create new partitions. See *Partitions* for more information.

Note: Partitions are used to limit user access to devices and cameras.

ADDING ROLES AND USERS

A default administrator user with the administrator privileges is created when you install MAXPRO VMS. The privileges for a user are defined in roles. You can define roles according to your requirements and assign them to users. The users are associated to a site. Only the users with access to the site can perform actions such as viewing video, acknowledging alarms, and others based on the user privileges. See *Users* and *Roles* for more information.

ADDING CONTACT GROUP AND CONTACTS

You can add a contact group of users with different roles and also store a contact in MAXPRO VMS. An alarm notification can be configured to a contact group. See *Contact Group* for more information.

ADDING EVENT GROUPS

An event group is a grouping of events that occur on devices. The events in each event group are defined when you add a device such as recorder, switcher, and camera. A default event group is added when you install MAXPRO VMS. You can use the default event group or create new event groups. See *Event Group* for more information.

ADDING RECORDER GROUPS

Recorder group feature distributes the load on a controller. It allows you to create different groups and associate recorders to it. Associating recorders to the groups enables the load is distributed among the recorder controllers. See *Recorder Groups* for more information

ADDING SERIAL PORTS

Serial ports are added for communication with joystick controllers (Ultrakey keyboards), switchers, and Protocol Interface Translators (PIT). You can add up to 20 serial ports to MAXPRO VMS server. See *Serial Port* for more information.

ADDING ANALYTICS

You can add analytics server for automating motion detection, triggering real-time alarms, and enabling fast search and retrieval of videos. The applications can be launched directly from the server or from a separate client personal computer (PC) that can access the server through a TCP connection. See *Analytics* for more information.

ADDING RECORDERS

You can add Rapid Eye, MAXPRO NVR, Enterprise, IP Engine, HRXD, Fusion, Milestone, DigitalSentry, MAXPRO VMS and HRDP recorders. After adding recorders, you can associate them with partitions, and define the events. Only users of the partition that is associated with the recorder can configure the recorder settings. Only the events defined for the recorder can be configured to trigger event based alarms. For example, if you associate Recorder Disconnected event to a recorder, you can configure an alarm to be triggered when this event occurs. See *Recorders* for more information.

ADDING SWITCHERS

Presently, you can add Vicon, Burle, American Dynamics, Pelco, VideoBlox, and MAXPRO switchers. See *Switchers* on page *179*.

ADDING VIDEO INPUTS

You can add video inputs and associate them to recorders and switchers. See *Video Inputs* for more information.

ADDING VIDEO OUTPUTS

You can add video outputs like standard device, trunk, VCR, analog and digital monitors. See *Video Outputs* for more information.

ADDING RELAYS

You can add relays that can be connected to devices like switcher, recorder, cameras, keyboard, and high level device.Relays send signals that perform various actions. For example, you can set a relay to open the door automatically when a motion is detected in a particular region. See *Relays* for more information.

ADDING ALARM INPUTS

You can add alarm input to raise alarms through an external device in MAXPRO VMS. These alarm inputs can be associated to devices like switcher, recorder, cameras, keyboard, networks and high level device. See *Alarm Inputs* for more information.

ADDING LOGICAL CAMERAS

You can group the cameras using the logical camera option. Using the logical camera option, selection of a particular camera is made easier. See *Logical Camera* for more information.

ADDING SEQUENCES

You can define sequences to view live video streamed one after the other from cameras for a specified time interval. See for more information.

ADDING SYSTEM MACROS

A macro is a rule or pattern that specifies how a certain input sequence (often a sequence of characters) is mapped to an output sequence or action. See *System Macros* for more information.

ADDING JOYSTICK CONTROLLERS

An Ultrakey keyboard is referred to as the joystick controller. Using the Ultrakey keyboard, you can perform actions such as selecting a camera in the Viewer tab. See *Joystick Controllers* for more information.

ADDING INTERCEPT KEYS

Frequently used or repetitive sequence of keystrokes can be automated using intercept keys. Each intercept key is associated with a macro. See *Intercept Keys* for more information.

SCHEDULING

You can schedule an alarm notification, jobs to be performed at a stipulated time, configure SMTP setting, and create an email template in MAXPRO VMS. See *Scheduler*, *Jobs*, *SMTP Server Settings*, *Alarm Notification* and *Creating an Email Template* for more information.

RECORDERS

Recorders are devices used for streaming video and recording video from surveillance cameras (analog cameras and IP based digital cameras).

RECORDERS AND PARTITIONS

A partition is a logical grouping of video devices. Partitions are associated to recorders. You can restrict a non-associated user of the partition from viewing or changing the settings of the recorder.

RECORDERS AND EVENTS

Events are predefined actions. Recorders have predefined events by default. An alarm is triggered whenever an event is generated. For example, when a camera is added to a recorder, an event 'CameraAdded' is generated. You can also associate event attributes to events.

ADDING A RECORDER

Before you begin

- Add Site. See *Adding a Site* for more information.
- Add Partition. See *Adding a Partition* for more information.
- Add Event Groups. See *Adding an Event Group* for more information.

By default, a site, partition and event groups are available. You can associate the recorder to them or create new.

To add a recorder

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Click **Add**. The General Settings screen for the recorder appears.

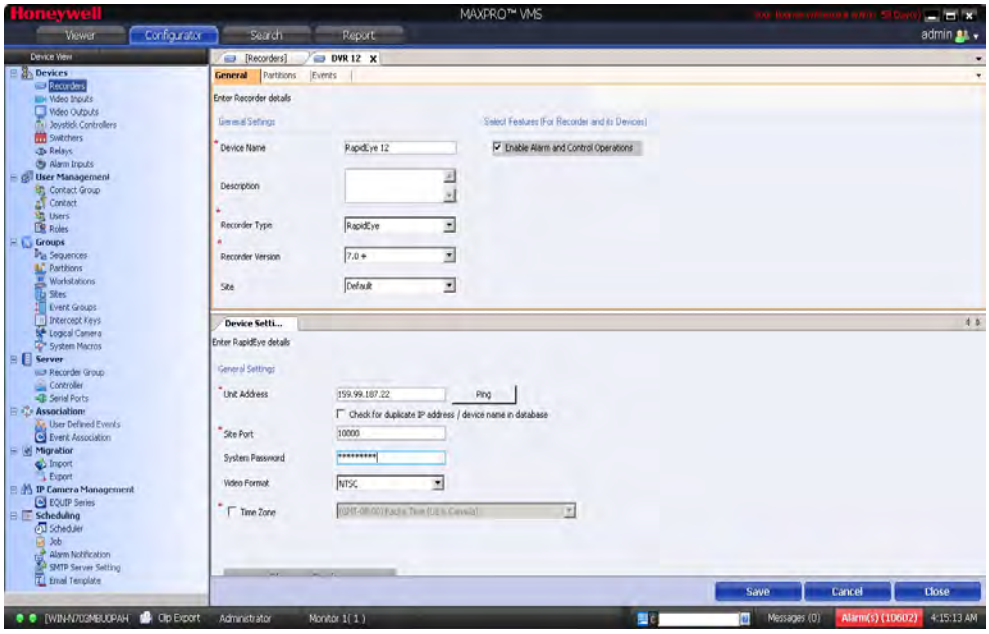


Figure 4-3 Recorder General Settings

4. In the **Device Name** box, type a name for the recorder. Maximum characters that you can type is 50.

5. In the **Description** box, type a description for the recorder.
6. In the **Recorder Type** drop-down list, select the recorder. Device settings for the selected recorder appear. The following table explains how to configure the device settings for the recorders.

Recorder Type	To configure the device settings
RapidEye	• In the **Unit Address** box, type the numeric IP address or the host name of RapidEye recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database** check box to check the availability of the host name. • In the **Site Port** box, the port number appears by default. • In the **System Password** box, type the system password assigned to the recorder. • In the **Video Format** drop-down list, select the required video format.
Enterprise	• In the **Site Address** box, type the numeric IP address or the host name of the Enterprise recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database** check box to check the availability of the IP Address/host name in database.. • In the **Redundant Site Address** box, type the redundant IP address or the host name for the recorder. The redundant IP address is chosen when the primary IP address is unavailable. • In the **User ID** box, type the user name to access the recorder. • In the **Password1**, **Password2,** and **Password 3** boxes, type the respective passwords assigned to access the recorder. • Select the **Time Zone** check box to enable the global time zone box and select the required time zone. • In the **Date Format to Display** drop-down list, select the date format as a applicable to the recorder.

Recorder Type	To configure the device settings
Fusion	• In the **Site Address** box, type the numeric IP address or the host name of the Fusion recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database** check box to check the availability of the host name. • In the **Site Port** box, the port number appears by default. • In the **User ID** box, type the user name to access the recorder. • In the **Password** box, type the assigned password for the user. • Select the **Time Zone** check box to enable the global time zone box and select the required time zone.
Intellex	• In the **Site Address** box, type the numeric IP address or the host name of the Intellex recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database check box** to check the availability of the host name • In the **Live Port** box, the port number appears by default. You can change the port number as applicable. • In the **Event Port** box, the port number appears by default. You can change the port number as applicable. • Select the **Time Zone** check box to enable the global time zone box and select the required time zone.
IPEngine	• In the **Primary Database Server** box, type the numeric IP address or the host name of the computer where IP Engine database server is installed. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database** check box to check the availability of the host name • In the **Redundant Database Server** box, type the redundant database server name only if you have a redundant server. • Select the **Time Zone** check box to enable the global time zone box, and then select the required time zone. • Select the **Enable Client Side PTZ** check box to enable PTZ operations directly from the client workstation without using Trinity Controller. This feature is useful when MAXPRO VMS client and devices are on the local network and Trinity Controller is on a Wide Area Network (WAN). **Note:** To configure the advanced settings for IP Engine, see *Advanced Settings for IP Engine*.

Recorder Type	To configure the device settings
HRXD	• In the **Site Address** box, type the numeric IP address or the host name of the HRXD recorder. • Select the **Check for duplicate IP address/ device name in the database** check box to check the availability of the host name. • In the **Watch Port** box, type the port number. • In the **Search Port** box, type the port number. • In the **User ID** box, type the user name to access the recorder. • In the **Password** box, type the password to access the recorder. • Select the **Time Zone** check box to enable the global time zone box, and then select the time zone from the drop-down list.
Digital Sentry	• In the **Site Address** box, type the numeric IP address or the host name of the Digital Sentry recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database** check box to check the availability of the host name. • In the **Site Por**t box, the port number appears by default. • In the **User ID** box, type the user name to access the recorder. • In the **Password** box, type the password to access the recorder. • Select the **Time Zone** check box to enable the global time zone box and select the required time zone.

Recorder Type	To configure the device settings
MileStone	• In the **Site Address** box, type the numeric IP address or host name of the computer where the Milestone Server application is installed.Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • In the **User Type** drop down list, select either “Basic” or “Windows User” as applicable. • In the **User ID** box, type the user name of the selected user. • In the **Password** box, type the password of the selected user. • In the **Central Address** box, type the IP address or host name of the computer where Mile Stone Server application is installed. • In the **Central Port** box, the port number appears by default. • In the **User ID** box, the default central user name “adm in” is displayed. • In the **Password** box, the default central password “pass” is displayed. **Note:** The central **User ID** and **Password** information is very important for receiving events and alarms from the Milestone device, and are configured in the Milestone Management Application.
MAXPRO NVR	• In the **Unit Address** box, type the numeric IP address or the host name of the MAXPRO NVR recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/ device name in the database** check boxt o check the availability of the host name. • In the Search Pot box, the port number appears by default. • In the **Controller Port** box, the port number appears by default. • In the **StorageEngine Port** box, the port number appears by default. • In the **User Name** box, the user name appears by default. • In the **Password** box, the password appears by default.

Recorder Type	To configure the device settings
MAXPRO VMS	• In the **Site Address** box, type the numeric IP address or the host name of the MAXPRO VMS recorder. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid. • Select the **Check for duplicate IP address/hostname in the database** check box to check the availability of the host name. • In the **User ID** box, type the user name to access the recorder. • In the **Password** box, type the password to access the recorder. • Select the **Time Zone** check box to enable the global time zone box and select the required time zone. **Note:** See *VMS as a Recorder* for more information about MAXPRO VMS recorder.
HRDP	• In the **Site Address** box, type the numeric IP address or the host name of the HRDP recorder. • Not supported: **Check for duplicate IP address/ device name in the database** check box to check the availability of the host name. • In the **Site Port** box, the port number appears by default. • In the **User ID** box, type the user name to access the recorder. • In the **Password** box, type the password to access the recorder. • In the **Device Type** drop-down list, select the device type as applicable. • Select the **Time Zone** check box to enable the global time zone box, and then select the time zone from the drop-down list.

7. In the **Recorder Version** drop-down list, select the recorder version.
8. In the **Site** drop-down list, select the site to which the recorder is to be associated.
9. Associate **Partition**. See *Discovering Devices* for more information.
10. Associate **Events and Event Attributes**. See *Associating Events and Event Attributes to a Recorder* for more information.
11. Click **Save**.
12. Click **Discover Devices** to discover various devices that are connected to MAXPRO VMS. See *Discovering Devices* for more information.

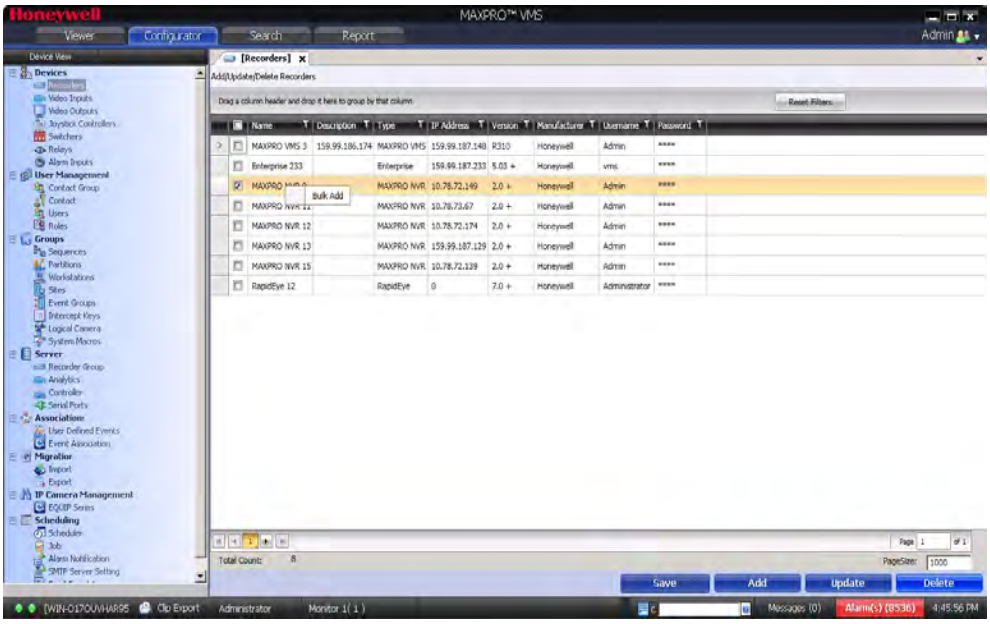
ADDING RECORDER IN BULK

Using Add Bulk feature you can add number of recorder at once.

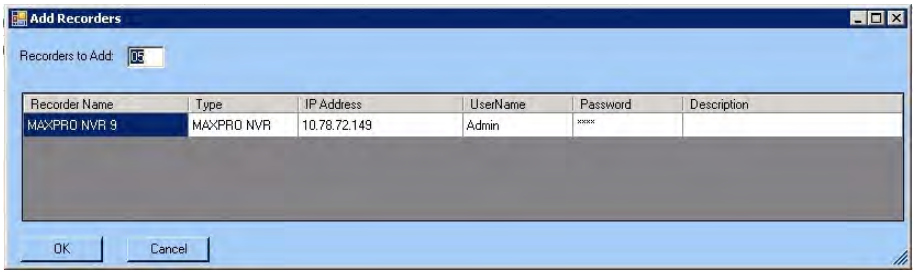
To add the recorder in bulk

1. In the **Recorder** screen, select the required recorder check box.

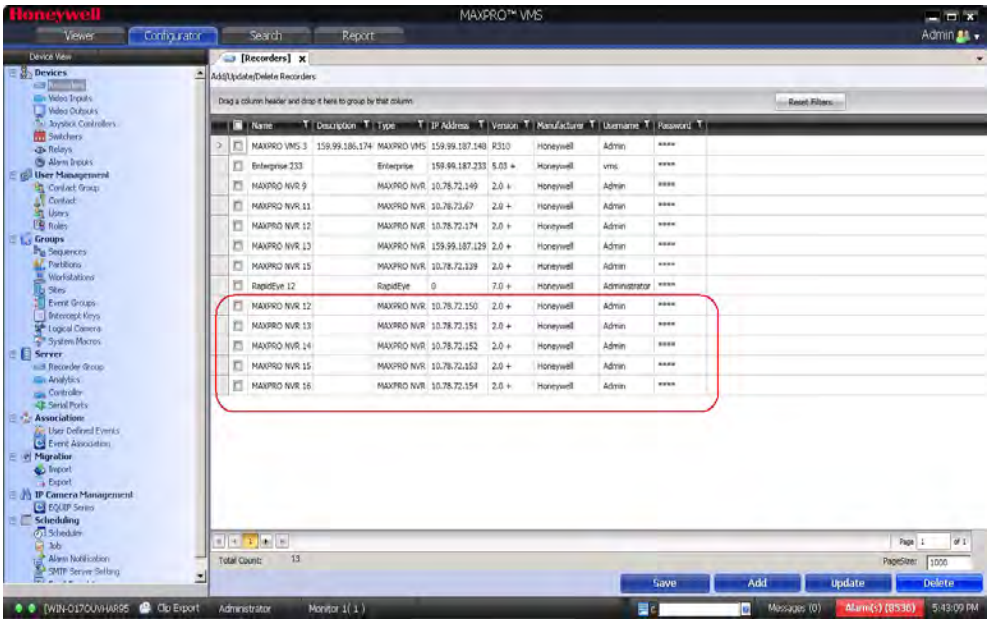
2. Right-click on the selected recorder name and then click **Add Bulk** as shown below.



The **Add Recorders** window is displayed as shown below.



3. Type the number of recorder to add in **Recorders to Add** box and then click **OK**. The number of new recorders added is highlighted in the recorder screen as shown below.



VMS AS A RECORDER

This feature is also called “VMS in VMS”. You can configure MAXPRO VMS as recorder similar to any other recorder like Fusion, Enterprise and so on. This configuration is useful if there are more than 10000 MAXPRO VMS's configured in different locations and you want to control them from one master MAXPRO VMS.

For example, there are 3 sites A, B, and C having MAXPRO VMS1, MAXPRO VM2, MAXPRO VMS3 configured. Here A is considered as the centralized site where the master VMS, MAXPRO VMS1 is configured. In this scenario, you can configure the MAXPRO VMS 2 and MAXPRO VMS 3 as recorders in a MAXPRO VMS1 and monitor the surveillance operations.

ADVANCED SETTINGS FOR IP ENGINE

You can do the following in the advanced settings for the IP Engine.

- *Configuring the Audit Log*.
- *Managing Disk Space for IP Engine*.
- *Monitoring the Status of the Camera Server*.
- *Viewing the Version and License Information for IP Engine*.

CONFIGURING THE AUDIT LOG

The audit log is stored in the IP Engine database. The IP Engine uses the audit log to provide a report of all user actions and system events. See About Reports.

You cannot configure the type of system events recorded in the audit logs but you can configure the length of time for which they are stored. The size of the audit log depends on how often system events are generated and the length of time they are stored. To avoid excessive use of disk space, store the audit logs only for the necessary time. A recommended setting is between a week and a month.

To configure the length of time for which the audit logs are saved in the database

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Double-click the IP Engine or select the IP Engine, and then click **Update**. The general settings for the IP Engine appear.
4. Click the **Advance Settings** tab. The advance settings for the IP Engine appear.
5. Click the **Audit Log** tab.
6. In the **Keep audit events for:** box, select the length of time for which the audit logs must be saved in the IP Engine database.

MANAGING DISK SPACE FOR IP ENGINE

The IP Engine can be configured to raise alarms, start deleting video clips automatically, or stop recording onto a disk when the free space drops below the configured minimum levels.

Even after you have configured disk space settings, the disk can still run out of space if:

- The rate at which recordings are being made is greater than the rate at which old recordings are being deleted.
- No clips suitable for automatic deletion can be found on the disk.

If you configure the deletion threshold at a value larger than the volume of the disk, the IP Engine disables automatic clip deletion for that disk. An alarm is raised to notify the operator that automatic clip deletion is disabled for the disk.

The IP Engine raises an alarm when there is a need for automatic clip deletion on a disk. Alarms are raised each time the IP Engine begins automatic clip deletion. This is followed by alarms raised every ten minutes, until the available disk space exceeds the configured automatic clip deletion value. If the amount of free disk space is near the automatic clip deletion value, alarms are raised more frequently.

To manage disk space

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Double-click the IP Engine or select the IP Engine, and then click **Update**. The general settings for the IP Engine appear.
4. Click the **Advance Settings** tab. The advance settings for the IP Engine appear.
5. Click the **Disk Space** tab.
6. In the **Camera Server** box, select the server for which you want to configure the disk space.
7. In the **Disk** box, select the disk for which you want to configure the space.
8. Configure the following disk properties according to your requirements.

Disk Property	Description
Raise a low disk space alarm when free disk space reaches	Alarm is raised when the free disk space falls below the specified value. Minimum value is 1000 MB.
Automatically delete clips when free disk space reaches	If selected, video clips are automatically deleted, when the free space on the disk falls below the specified value. Minimum value is 1000 MB. This value must be less than the low disk space alarm value.
Allow deletion of clips marked for archiving	If selected, video clips that are marked for archiving are deleted.
Raise a very low disk space alarm when free disk space reaches	Low disk space alarm is raised if the free disk space falls below this value. Minimum value is 1000 MB. This value must be less than the automatic clip deletion alarm value.
Start recording again when free disk space reaches	The minimum free disk space required to start recording. The IP Engine resumes recording after having stopped due to insufficient disk space.
Stop recording when free disk space reaches	The recording stops if the minimum free disk space falls below this value. Minimum value is 1000 MB. This value must be less than the start recording again value.

You can view the disk space details in the Disk Usage table. The following table defines the labels in the table.

Label	Description
Directory	The folder in which video clips are stored.
DVM Clips (GB)	If selected, video clips are automatically deleted, when the free space on the disk falls below the specified value. Minimum value is 1000 MB. This value must be less than the low disk space alarm value.
Free space (GB)	The remaining free disk space, expressed in GB.
Free space (%)	The remaining free disk space, expressed in %.
Hourly usage (MB/hr)	Indicates, the rate at which video is being stored on the disk. The value is shown based on the usage rate for the minute before you called up the display, or since you last clicked **Refresh**.
Disk Health	Indicates the disk's health: The options are OK or Fault (indicates improper function of the disk to record video).

MONITORING THE STATUS OF THE CAMERA SERVER

You can view the status of each camera server. The status is indicated as: OK or Software Fault.

To view the status of the camera server

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**.
3. The **Recorders** screen appears in the display area.
4. Double-click the IP Engine or select the IP Engine, and then click **Update**. The general settings for the IP Engine appear.
5. Click the **Advance Settings** tab. The advance settings for the IP Engine appear.
6. Click the **Server Status** tab. The list of camera servers and their status is displayed.

VIEWING THE VERSION AND LICENSE INFORMATION FOR IP ENGINE

To view license information of IP Engine

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Double-click the recorder or select the recorder, and then click **Update**. The general settings for the recorder appear.
4. Click the **Advanced Settings** tab.
5. Click the **About** tab. The version and license information is displayed. The following table provides the information details.

Version Information	
Version	The version of recorder.
Host Information	

Host Name	The name of the EBI, Experion, or HSS server, if the recorder is used in conjunction with EBI, Experion, or HSS server. None, if the recorder is not used in conjunction with EBI, Experion, or HSS server.
General License Information	
Cameras	The number of cameras licensed for your system.
IE Clients	The number of Microsoft Internet Explorer clients licensed for your system.
Redundancy	Indicates whether database server redundancy is licensed for your system.
Video Analytics License Information	
Premium Algorithm	Indicates whether the premium algorithm is licensed for your system.
Object Tracking Algorithm	The number of cameras licensed to use the object tracking algorithm.
Object Tracking and Classification Algorithm	The number of cameras licensed to use the object tracking and classification algorithm.
Stationary Object Detection Algorithm	The number of cameras licensed to use the stationary object detection algorithm.
Third Party License Information	
Third party licenses	Click View Licenses to see the license details of third party products used by the recorder for functions, such as video compression.

DISCOVERING DEVICES

Discover devices feature allows you to discover the devices associated to recorders (For example: MAXPRO NVR, EXACQ, Panasonic, MAXPRO VMS, GeViscope, EnduraExpress, HRXD, LG, Milestone, DigitalSentry, Enterprise and Fusion, RapidEye)

To discover recorder devices

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Double-click the check box corresponding to the recorder from which you want to discover devices. The recorder screen and the settings appear.

4. Click **Discover Devices**. The **Discovery Wizard** dialog box appears.

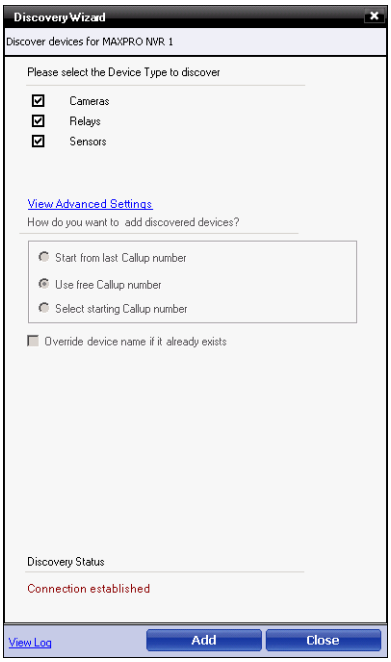


Figure 4-4 Discovery Wizard

5. Select the device or devices that you want to discover.
6. Click **View Advanced Settings** to configure advanced settings and to specify the order of discovered devices.

Settings	Instruction
Start from last Callup number	Select this option if you want to add the device from the last callup number of the device type that has been selected.
Use free Callup number	Select this option to use the available callup number in the device type that has been selected.
Select starting Callup number	Type the starting callup number, and then choose an option from **If Callup number already exists, what do you want to do?** section. See *step 7*.
Override device name if it already exists	Select the option to override the device name that already exits.
Use Enterprise System Number as Callup Number	Select the option to use the same callup number of Enterprise. When this option is selected, choose the options from **If Callup number already exists, what do you want to do?** section and **Camera Type Selection**. See *step 7* and *step 8*.

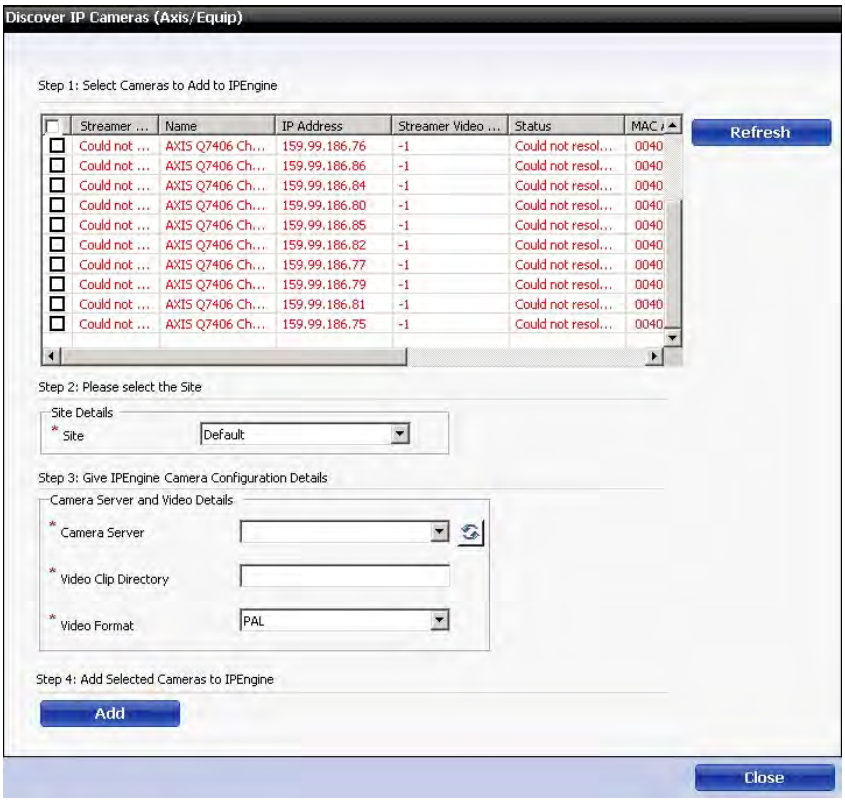
Settings	Instruction
Use Child VMS Callup Number as Callup Number	**Note:** This feature is applicable only for MAXPRO VMS recorder. Select the option to use the same callup number of the cameras configured in the child VMS. When this option is selected, choose the options from If **Callup number already exists, what do you want to do?** section. See *step 7*.

7. In **If Callup number already exists, what do you want to do?** selection, select the required option. The available options are:
    - **Add to End** - appends to the end of existing call up number.
    - **Override** - overrides the callup number.
    - **Don't Add** - does not add the callup number
8. In **Camera Type Selection** section, select **Add Camera as Digital Camera** or **Add Camera as Hybrid Camera**.
9. Click **View Discover** Log to view any log.
10. Click **Close** once connection established status appears in **Discovery Status** section.

Note: All the cameras connected to the recorders would be added. The list of cameras appear in the **Site** window in the **Devices** tab. In case of IP Engine, Discover IP Cameras (Axis/Equip) screen appears. You can select the cameras that you want to add and the Camera Server, Video Clip Directory and Video Format.

To discover cameras connected to recorders (such as IP Engine, HRDP)

1. Click the **Discover Cameras**.
2. The **Discover IP Cameras (Axis/Equip)** dialog box appears.



3. Select the check box corresponding to the camera or cameras that you want to add.
4. From the **Site** drop-down list, select the required site.
5. In the **Camera Server** drop-down list, select the IP Engine Camera Server.
6. In the **Video Clip Directory** box, type a path to store video clips.
7. In the **Video Format** drop-down list, select a format for the video.
8. Click **Add**.

ASSOCIATING PARTITIONS TO THE RECORDER

You can associate partitions to recorder. Associating a partition to a recorder restricts a non-associated user of the partition from viewing the recorder or changing the settings of the recorder.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partition to a recorder

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **Recorders** branch. The **Recorders** screen appears in the display area.
4. Double-click the recorder you want to associate. The **General Settings** screen appears.
5. Click the **Partitions** tab. The screen displays the associated partitions, if any.

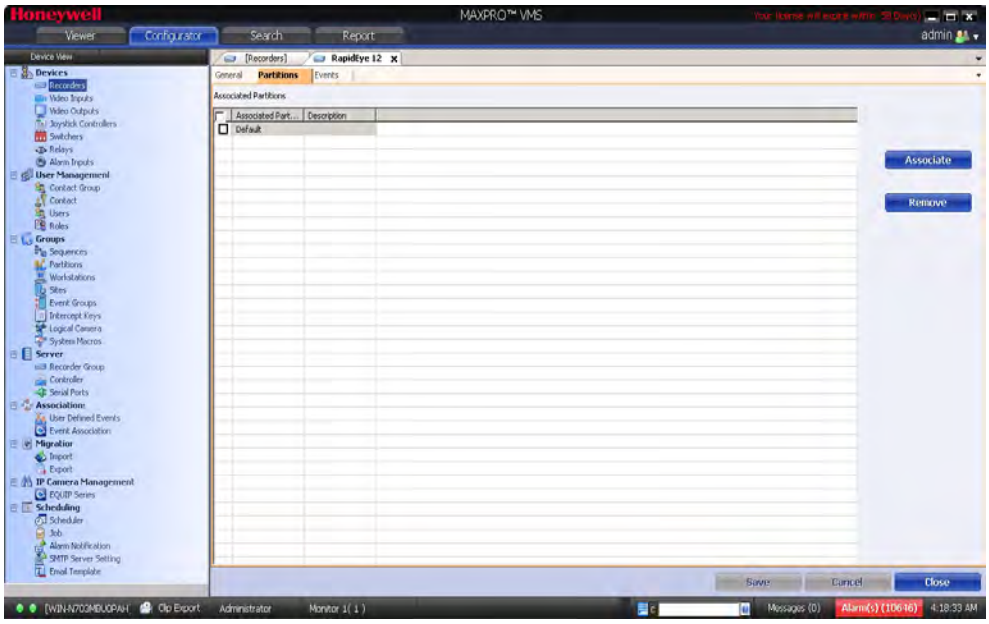


Figure 4-5 Recorder Partitions

6. Click **Associate**. The **Select Partitions** dialog box appears.

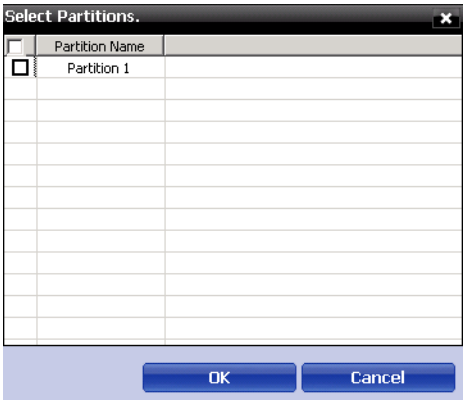


Figure 4-6 Select Partitions

7. Select the check box corresponding to the partition name you want to associate.
8. Click **OK**. The recorder is associated with the partition.

To disassociate partition from a recorder

- Select the check box corresponding to the partition name, and then click **Remove**.

Note: Partitions associated to a recorder cannot be removed unless they are removed from the devices that are connected to the same recorder.

ASSOCIATING EVENTS AND EVENT ATTRIBUTES TO A RECORDER

You can associate one or more events to a recorder. An alarm is triggered whenever any of the associated event occurs for the recorder. For certain events, you can also associate event attributes. For example, for an Encoder Disabled event, you can associate attributes such as Encoder Name, Encoder ID and so on. For every attribute that you associate, you can set a value based on which the event is triggered. In the above example, you can associate the attribute Encoder Name to the event and set its value as Encoder A. When this event is associated to the recorder, an alarm is raised when the event “Encoder Disabled” occurs for the Encoder Name “Encoder A”.

Attributes are available only for certain events. These events can be associated to a recorder multiple times. The event attributes are listed in the details of the alarm in Alarm window. To view the event attributes of an alarm, right-click the alarm, and then click Show Details.

To associate events to a recorder

1. Click the **Events** tab. The screen displays the associated events if any.

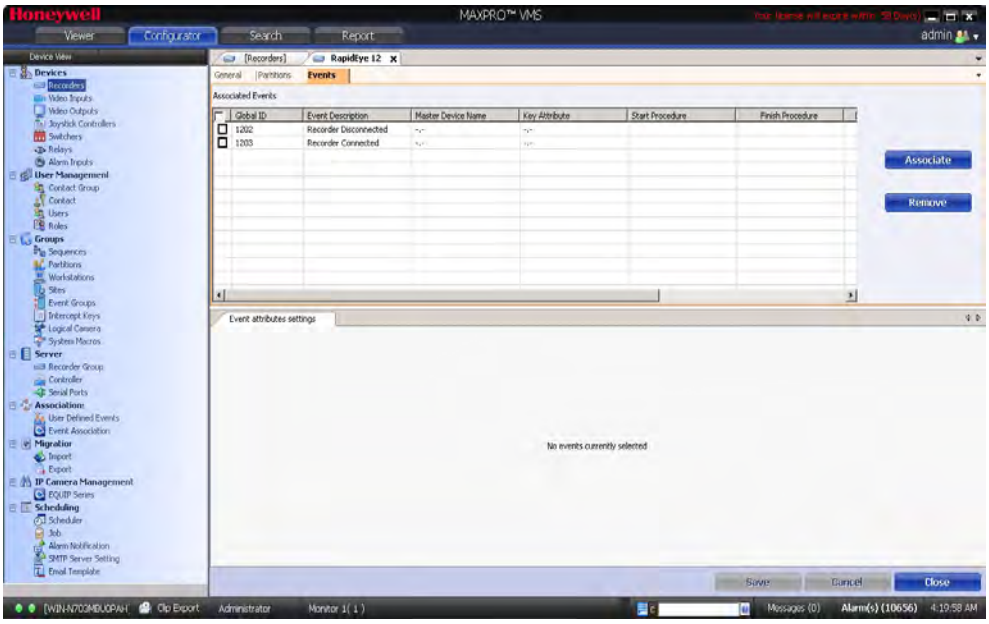


Figure 4-7 Recorder Events

2. Click **Associate**. The **Select from List** dialog box appears.

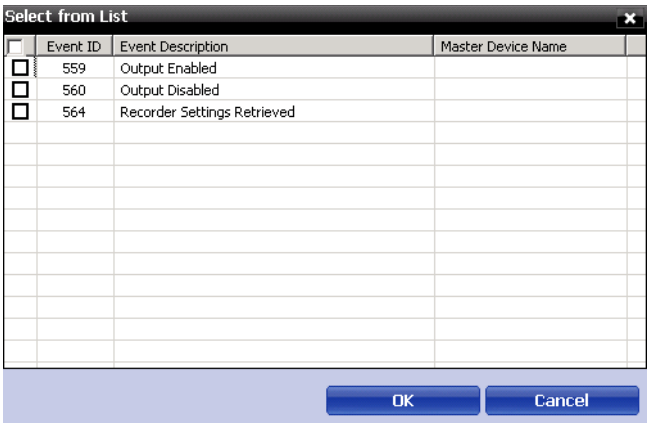


Figure 4-8 Select from List

3. Select the check box corresponding to the event you want to associate.
4. Click **OK**.

Note: For a MAXPRO VMS recorder, all the events that are configured for the recorders in the child VMS are displayed. Hence the **Associate** and **Remove** buttons are disabled. To associate any new events, you must configure them in the child VMS, and again reconfigure the child VMS in the master VMS.

To disassociate events from a recorder

- Select the check box corresponding to the event, and then click Remove.

To add event groups to events

1. Select the check box corresponding to the event you want to add the event group.
2. Double-click the value under the **Event Group** column. The **Select EventGroup** dialog box appears.

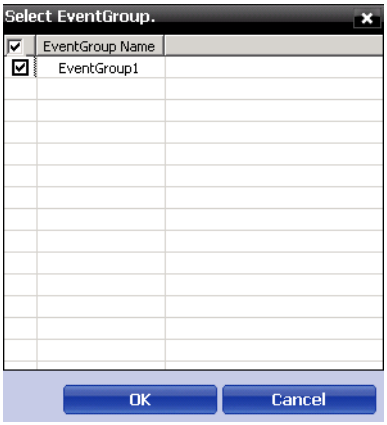


Figure 4-9 Select Event Group

3. Select the check box corresponding to the event group you want to add.
4. Click **OK**.

Note: You need to add an event group before you associate it to an event. See *Adding an Event Group* for more information.

To disable an event

1. Select the check box corresponding to the event you want to disable.
2. Click the text under the **Disabled** column. A drop-down list is enabled.
3. Select **True**.

To assign severity level

1. Select the check box corresponding to the event you want assign severity level.
2. Click the value under the **Severity Level** column and edit the severity level.

Note: Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

To enter remarks

1. Select the check box corresponding to the event you want to enter remarks.
2. Click the text under the **Remarks** column and type the remarks.

To assign macros

1. Select the check box corresponding to the event you want to assign macros.
2. Click the box under the **Start Procedure** column, and then type the required macro.
3. Click the box under the **End Procedure** column, and then type the required macro.

ASSOCIATING EVENT ATTRIBUTES

Before you begin

- Associate events.

To associate event attributes

1. Select the check box corresponding to the event for which you want to associate event attributes. The **Event attributes** Settings appear in the lower pane.
2. Click **Associate**. The Select **Available Event Attributes** dialog box appears.
3. Select the check box corresponding to the event attributes that you want to associate.
4. Click **OK**.

To disassociate event attributes from a recorder

- Select the check box corresponding to the event attribute, and then click **Remove**.

The following table describes the event name, event attributes, and their description.

Recorder	Event Name	Event Attributes	Attribute Description
IP Engine	ReplicationHealthChanged	Health Status	Possible health values like OK, Failure, and Unknown.
	RedundancyConfigurationChanged	PreferedDatabaseServerName	Computer name of the preferred Database server.
		RedundantDatabaseServerName	Computer name of the preferred Database server.
	PreferredDatabaseServerChanged	PreferedDatabaseServerName	Machine name of the preferred Database server.
	NetworkHealthChanged	Health Status	Possible health values like OK, Failure, and Unknown.
	DiskHealthChanged	Health Status	Possible health values like OK, Failure, and Unknown.
		ComputerName	Machine name of the Camera Server.
		DiskName	Disk drive name of the Camera Server Computer {c:, d:}.
	DatabaseServerFailover	PreferedDatabaseServerName	Machine name of the preferred Database Server.
	CameraServerHealthChanged	Health Status	Machine name of the Camera Server.
		CameraServerName	Possible health values like OK, Failure, and Unknown.
	CameraDeleted		
	CameraAdded		

Recorder	Event Name	Event Attributes	Attribute Description
	DiskHealthOk	Health Status	Possible health values like OK, Failure, and Unknown.
		ComputerName	Machine name of the Camera Server.
		DiskName	Disk drive name of the Camera Server Computer {c:, d:}.
	Disk Health Unknown	CameraName	Possible health values like OK, Failure, and Unknown.
		Health Status	Machine name of the Camera Server.
		ComputerName	Disk drive name of the Camera Server Computer {c:, d:}.
	DatabaseServerHealthChanged	Health Status	Possible health values like OK, Failure, and Unknown.
		Database Server Name	Machine name of the Database Server.
	LowDiskSpace	Health Status	Possible health values like OK, Failure, and Unknown.
		ComputerName	Machine name of the Camera Server.
		DiskName	Disk drive name of the Camera Server Computer {c:, d:}.

Recorder	Event Name	Event Attributes	Attribute Description
Enterprise	Encoder Connected	Encoder Name	Name of the encoder. The format is { encodername (Station ID) }
		Encoder ID	Numeric value of the Encoder ID.
		Station ID	Numeric value of the Station ID.
		Device Type	Type of encoder
		IP Address	IP Address of encoder
	Encoder Disconnected	Encoder Name	Name of the encoder. The format is { encodername (Station ID) }
		Encoder ID	Numeric value of the Encoder ID.
		Station ID	Numeric value of the Station ID.
		Device Type	Type of encoder
		IP Address	IP Address of encoder
	Encoder Enabled	Encoder Name	Name of the encoder. The format is { encodername (Station ID) }
		Encoder ID	Numeric value of the Encoder ID.
		Station ID	Numeric value of the Station ID.
		Device Type	Type of encoder
		IP Address	IP Address of encoder
	Encoder Disabled	Encoder Name	Name of the encoder. The format is { encodername (Station ID) }
		Encoder ID	Numeric value of the Encoder ID.
		Station ID	Numeric value of the Station ID.
		Device Type	Type of encoder
		IP Address	IP Address of encoder

Recorder	Event Name	Event Attributes	Attribute Description
	RingBuffer Insufficient Space	RingBuffer Name	Name of the RingBuffer
		RingBuffer StationID	Numeric value of RingBuffer
		RingBuffer ID	Numeric value of RingBuffer ID
	RingBuffer Hardware Error	RingBuffer Name	Name of the RingBuffer
		RingBuffer StationID	Numeric value of RingBuffer
		RingBuffer ID	Numeric value of RingBuffer ID
	Station Connected	Station	Numeric value of Station ID
	Station Disconnected	Station	Numeric value of Station ID
Fusion	Output Enabled	RelayNumber	Numeric value of the Input Number
	Output Disabled	RelayNumber	Numeric value of the Input Number
	Recording Settings Retrieved		
MAXPRO VMS	MAXPRO VMS Sever Connected	Instance ID	Numeric value of the recorder ID
		VMS ID	Numeric value of the VMS ID
	MAXPRO VMS Server Disconnected	Instance ID	Numeric value of the recorder ID
		VMS ID	Numeric value of the VMS ID
	MAXPRO VMS Controller Connected	Instance ID	Numeric value of the recorder ID
		VMS ID	Numeric value of the VMS ID
	MAXPRO VMS Controller Disconnected	Instance ID	Numeric value of the recorder ID
		VMS ID	Numeric value of the VMS ID

Recorder	Event Name	Event Attributes	Attribute Description
MAXPRO NVR	Recording Server Connected		
	Recording Server Disconnected		
	Low Disk Space		
	Recording Server Connected		
	Recording Server Disconnected		
	MAXPRO NVR Controller Connected		
	MAXPRO NVR Controller Disconnected		
	Recording Settings Retrieved		
HRDP	Recorder Connected		
	Recorder Disconnected		
	Output Enabled		
	Output Disabled		
Milestone	Recorder Connected		
	Recorder Disconnected		
	Central Server Connected		
	Central Server Disconnected		
Digital Sentry	Recorder Connected		
	Recorder Disconnected		
	Output Enabled		
	Output Disabled		
Intellex	Recorder Connected		

Recorder	Event Name	Event Attributes	Attribute Description
RapidEye	Recorder Connected		
	Recorder Disconnected		
	Sessions Rejected		
	System - Self Restart		
	System - Reboot		
	System - No Video Recording		
	System - Storage Device Missing		
	System - Time Server Unusable		
	System - No Synchronization in 24 Hours		
	System - S.M.A.R.T Disk Failure		
	Rule Engine Action Triggered		
	System - Excessive System Clock Drift		
	Maintenance - Configuration Modification		
	Maintenance - Security Modification		
	Maintenance - System Files Modification		

Recorder	Event Name	Event Attributes	Attribute Description
	Maintenance - Synchronize Time		
	Maintenance - Clear Storage		
	Maintenance - Clear Stream		
	System - Runtime Failure		
	Session Disconnected		
	Session Connected		
	Output Enabled	RelayNumber	Numeric value of the Input Number
	Output Disabled	RelayNumber	Numeric value of the Input Number

ADVANCED SETTINGS

Caution: This tab displays only for the MAXPRO NVR recorder.

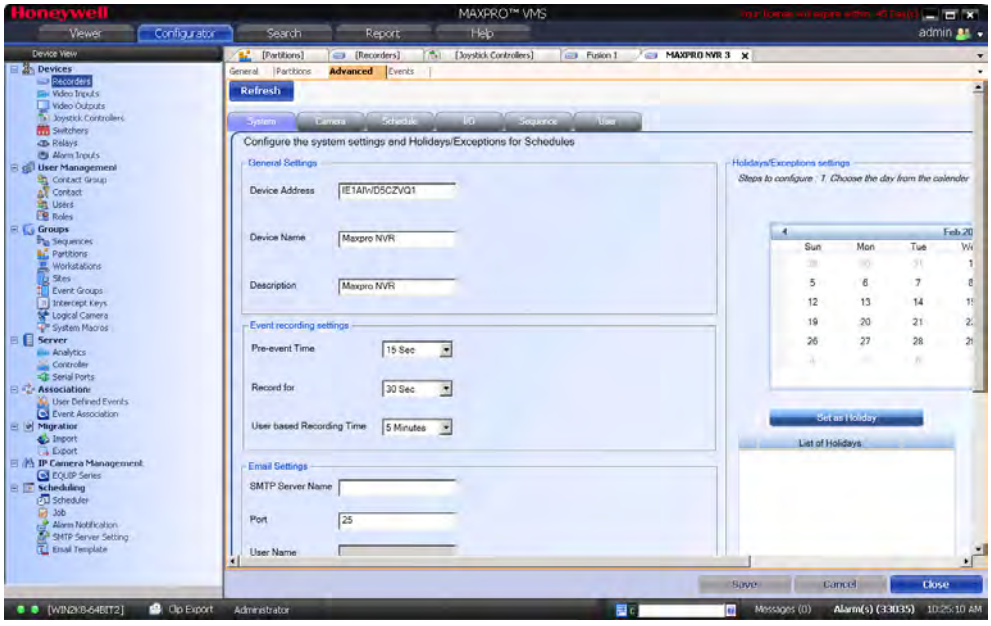


Figure 4-10 Advanced tab for MAXPRO NVR Recorder

The configured settings for the MAXPRO NVR recorder are displayed in the following five tabs.

- **System**
- **Camera**
- **Schedule**
- **I/O**
- **Sequence**
- **User**

You can navigate to each of these tabs and change the configured settings as applicable.

FILTERING AND GROUPING THE RECORDERS

Filter feature enables you to filter and group the required number of recorder columns. Filtering recorders can be performed in two ways.

a. By dragging and dropping specific column headers to group with the other columns.

b. By defining the row values to display the required columns.

To filter and group the recorder columns by drag and drop

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **Recorders** branch. The **Recorders** screen appears in the display area.

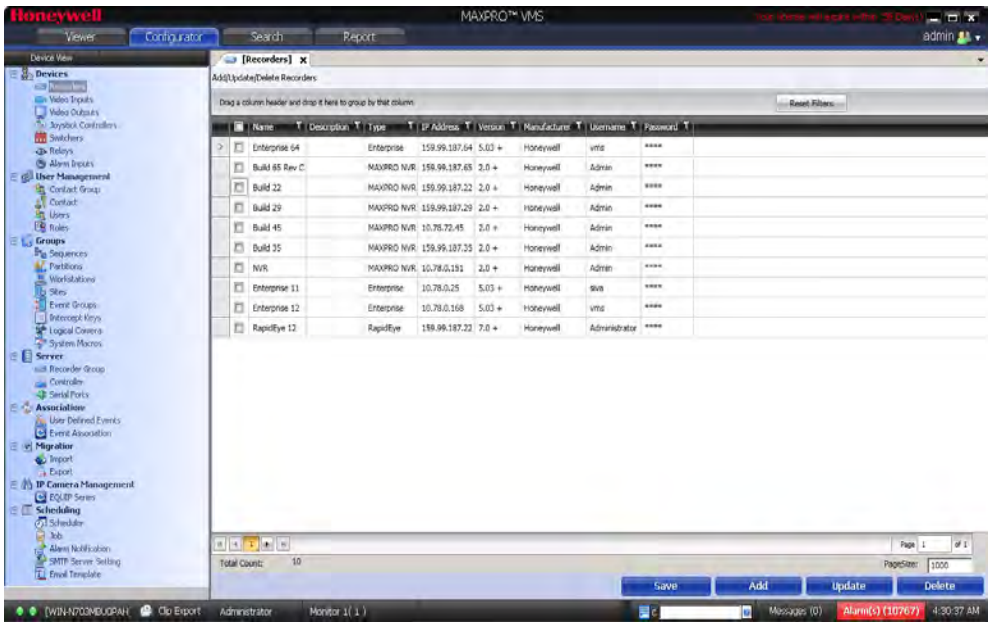


Figure 4-11 Recorder Filtering

4. Drag and drop the required columns in upper header area to view the corresponding column details.
   Or
   Right-click on the required column name and then choose **Group by** or **Ungroup by** option.
   Example 1: If you want to view the details of only **Name**, **Type** and **IP** columns at once, drag and drop the columns one after another to the upper header area as shown below.

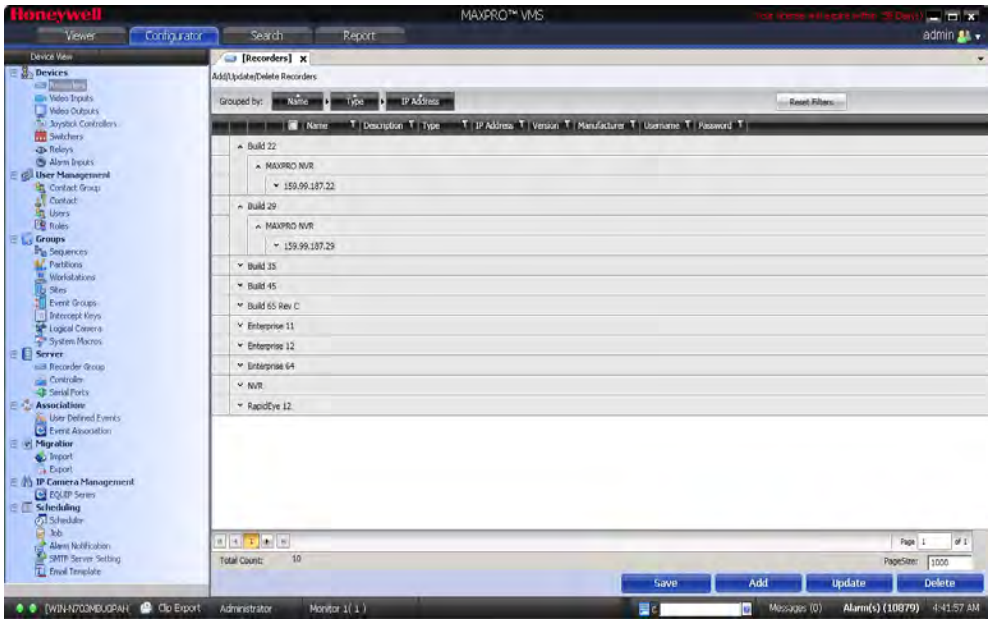
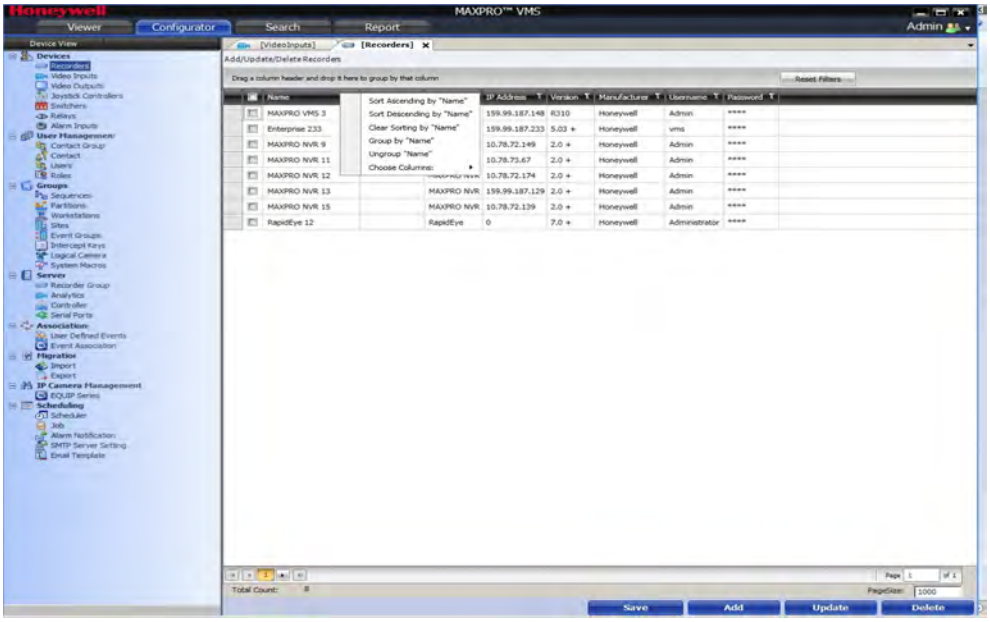
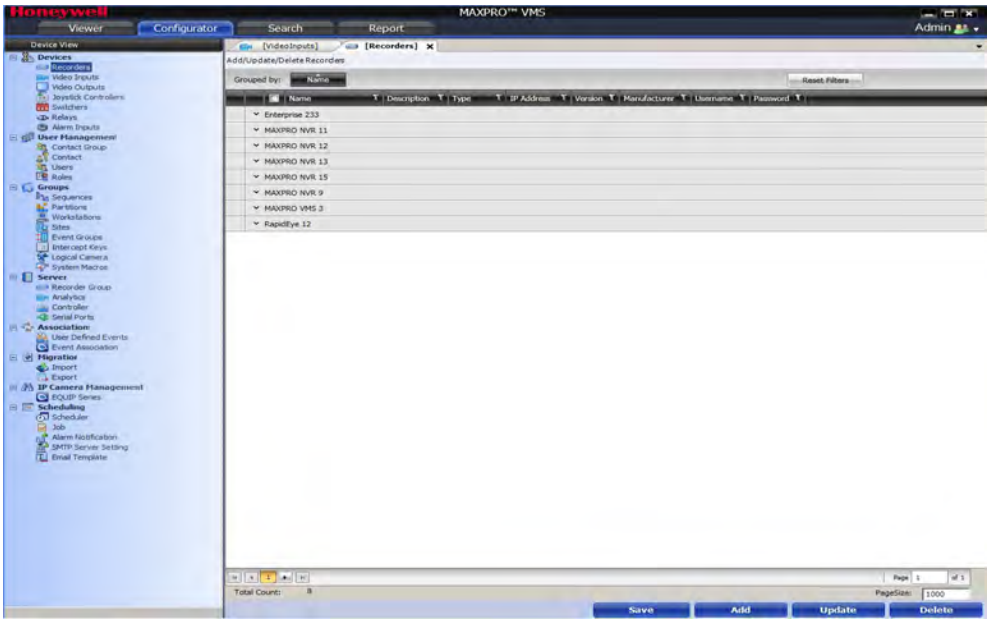


Figure 4-12 Recorder grouping

Example 2: If you want to group the columns by **Name** then right- click on the **Name** column and then choose **Group by "Name"** option as shown below.



The column arrangement is displayed a shown below.



5. Click ⌄ under each node to expand and view the details. Similarly repeat the step 4 to add more column headers.

To remove the column headers from the Grouped By area

- Drag the required columns from the **Grouped By** area and drop into the actual header area.

To filter the recorder columns by defining the value

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **Recorders** branch. The **Recorders** screen appears in the display area.

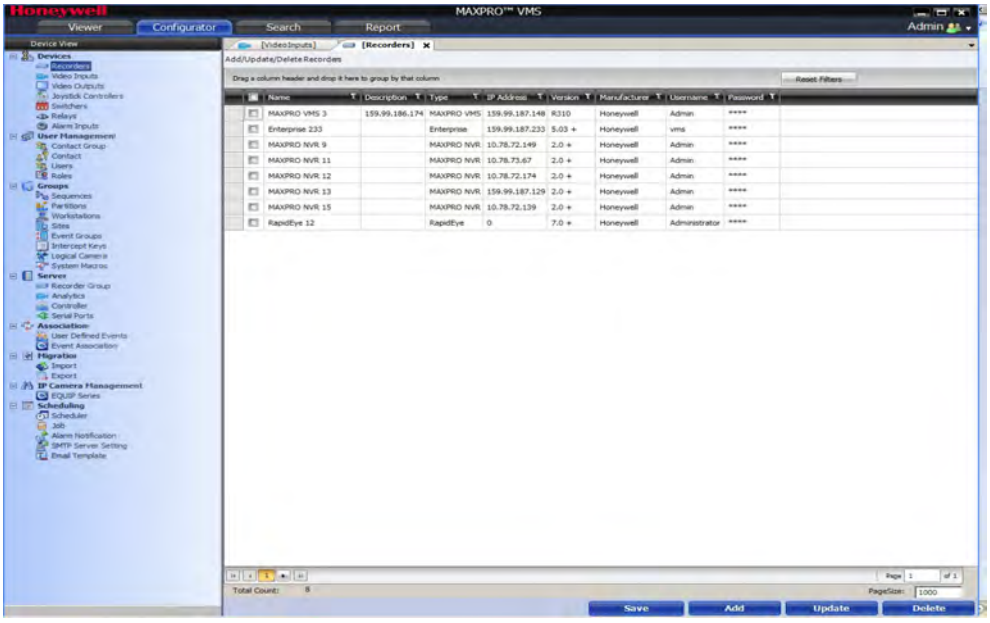
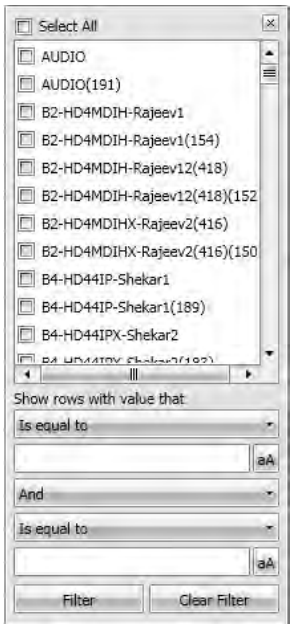
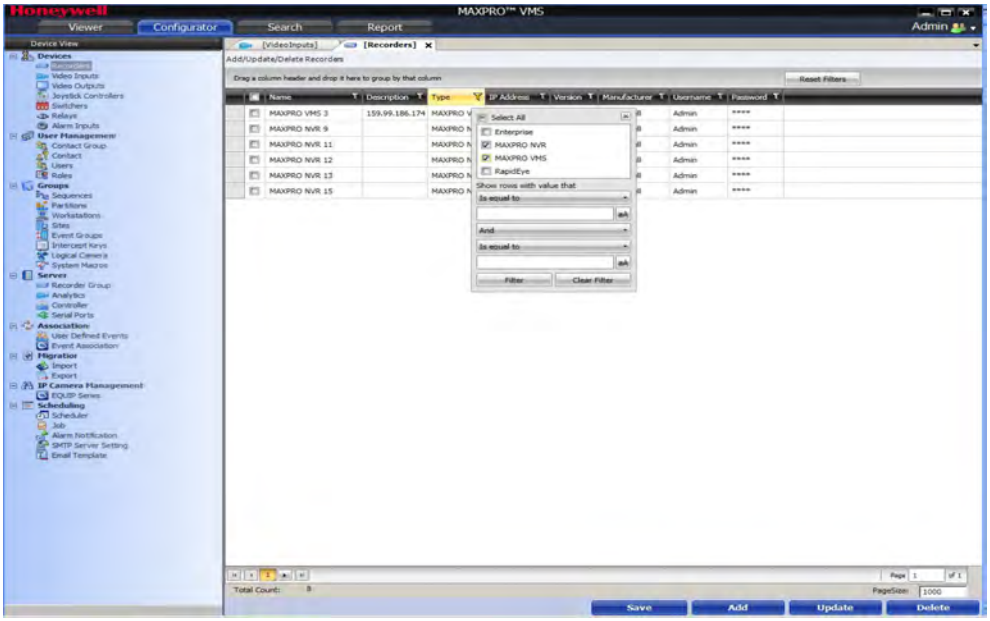


Figure 4-13 Recorder Screen

4. Click . Filter dialog box is displayed as shown below.



5. Under **Select All**, select the required check boxes to display the row elements as shown below.



OR

In the **Show rows with value that**, perform the following:

a. Select the required option from the **Is equal to** drop-down list.

b. Type the required value corresponding to your selection.

c. Select the required option from the AND/Or drop- down list.

d. Select the required option from the **Is equal to** drop-down list corresponding to your option selected.

e. Type the required value corresponding to your selections.

f. Click **Filter**. The recorder columns based on your requirement is displayed. For example If you define a row value as:
value **Starts with, MAXPRO NVR, And,** that **Is not equal to, Enterprise** then the result of the filter is displayed as shown below.

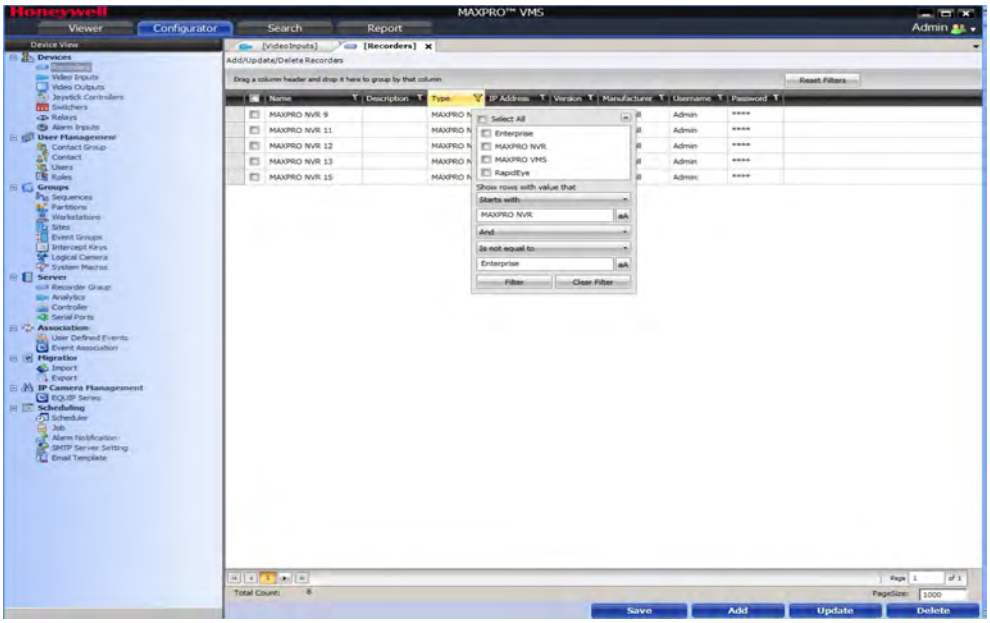


Figure 4-14 Defining Filter

To Clear or Reset the filter

- Click **Clear Filter** in the dialog box
  Or
  Click **Reset Filter** to reset all the filters.

SORTING RECORDER

Sorting feature enables you to sort the required columns ascending or descending. It also allows you to group or ungroup based on the specific column.

To sort the columns ascending or descending

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **Recorders** branch. The **Recorders** screen appears in the display area.

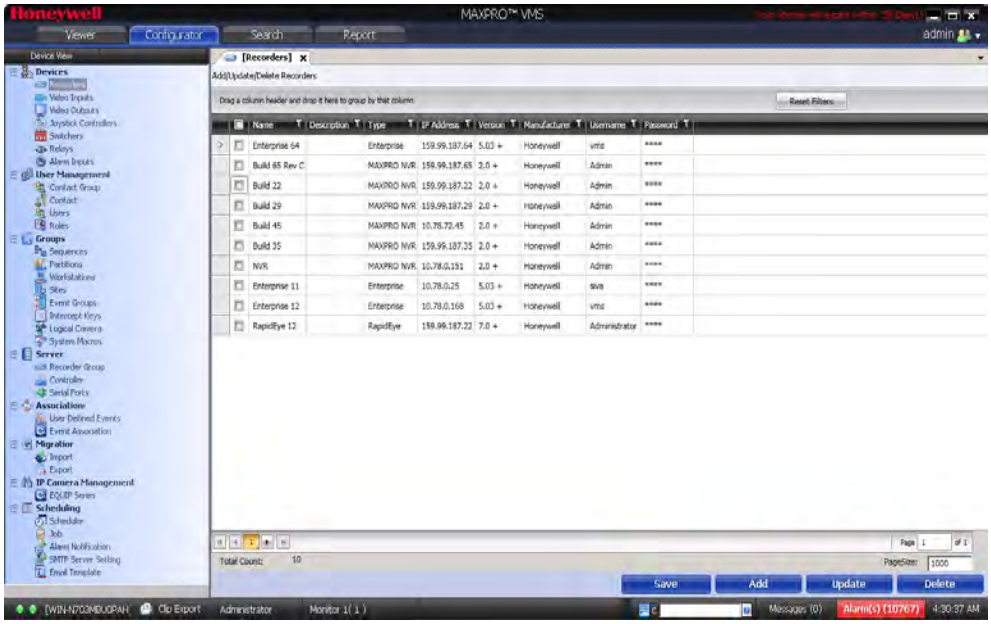
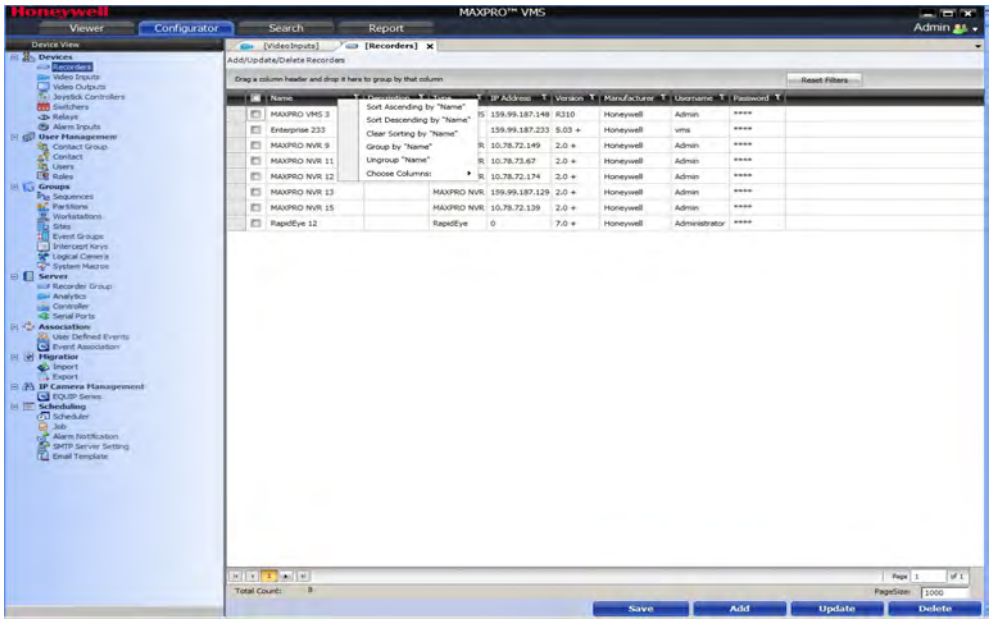


Figure 4-15 Recorder Screen

4. Right click on the required column name. Sorting options are displayed as shown below.



5. Choose the required Ascending or Descending option. The columns information is arranged accordingly as shown in *figure 12*.

CHOOSE THE COLUMNS TO DISPLAY

You can choose the attributes of recorder to display in the recorders screen.

To choose the columns to display

1. Right click on any column header and then point to **Choose Columns**. The available column names are displayed.

2. Select or clear the required column. Based on the selection the column table are displayed.

UPDATING A RECORDER

You can update a recorder to change the settings like the recorder name, site, site address, user ID, and password.

To update a recorder

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Select the check box corresponding to the recorder you want to update.
4. Click **Update**. The settings for the recorder appear. You can modify the settings.

DELETING A RECORDER

Before you begin

Remove the associations with the video inputs or delete all the video inputs that are associated with the recorder.

To delete a recorder

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Recorders**. The **Recorders** screen appears in the display area.
3. Select the check box corresponding to the recorder you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

VIDEO INPUTS

Video inputs are devices through which video is supplied into MAXPRO VMS. Video input devices can be logically grouped in MAXPRO VMS so that selecting and updating them is easier.

The following types of video input devices are supported.

- Camera -fixed or PTZ.
- Standard Device - other devices, freeze frames, and so on.
- Smart Device - devices such as multiplexers.
- Trunk - trunk video input (from a networked system).
- VCR (Video Cassette Recorder)- dedicated or Dub VCR.
- Standby VCR - Standby VCR as used in VCR Management.
- Logging VCR - Monitor logging VCR as used in VCR Management.
- Menu - MAXPRO-Net system menu (using MaxMon).
- Black Source - black source for monitor blanking.
- Digital Input Trunk - to view analog camera video.

VIDEO INPUTS AND PARTITIONS

A partition is a logical grouping of video devices. Partitions are associated to cameras. You can restrict a non-associated user of the partition from viewing or changing the settings of the camera.

VIDEO INPUTS AND EVENTS

Events are predefined actions. Video inputs have events set by default. For example, when a camera connection is lost, an event 'CameraDisconnected' is generated. You can also associate event attributes to events. An alarm is triggered whenever an event is generated.

VIDEO INPUTS AND ANALYTICS

Analytics can be configured for video inputs like cameras. Video analytics monitors the video from cameras at real time and triggers alarms to whenever an event occurs.

ADDING VIDEO INPUTS

Before you begin

- Add Site. See *Adding a Site*.
- Add Partition. See *Adding a Partition*.
- Add Event Groups. See *Adding an Event Group*.
- Add Recorders. See *Adding a Recorder*.
- Add Switchers. See *Adding a Switcher*.

By default, a site, partition, and event groups are available. You can associate the camera to them or create new.

You can add a camera to view live video and record video. You can associate cameras to partitions and events.

To add a video input

1. Click the **Configurator** tab.

2. Expand **Devices** in the navigation area, and then click **Video Inputs**. The **Video Inputs** screen appears in the display area, and displays the list of video inputs.

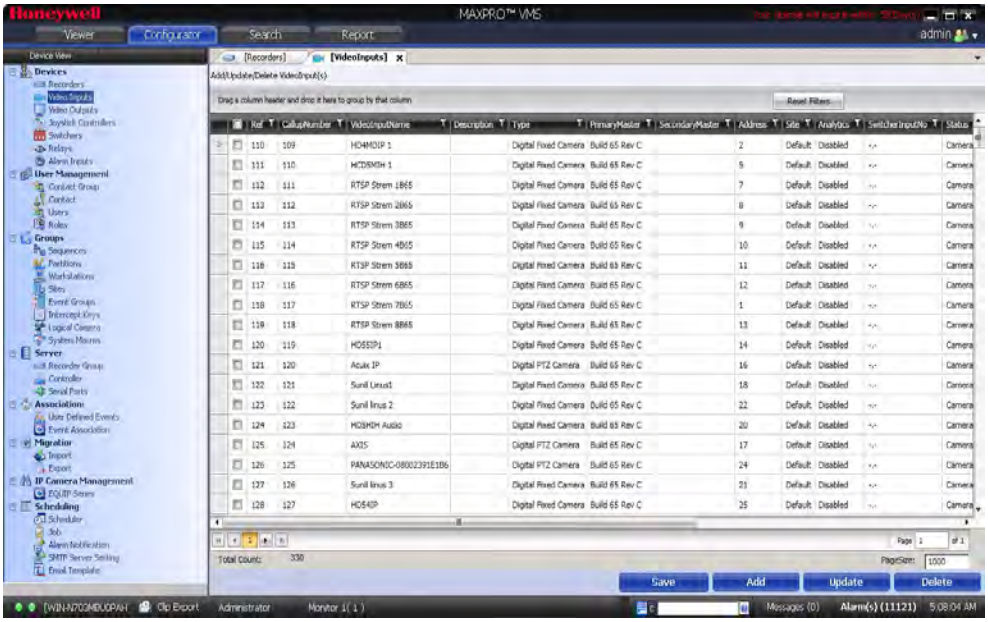


Figure 4-16 Video Inputs

3. Click **Add**. The **Camera** screen appears by default.

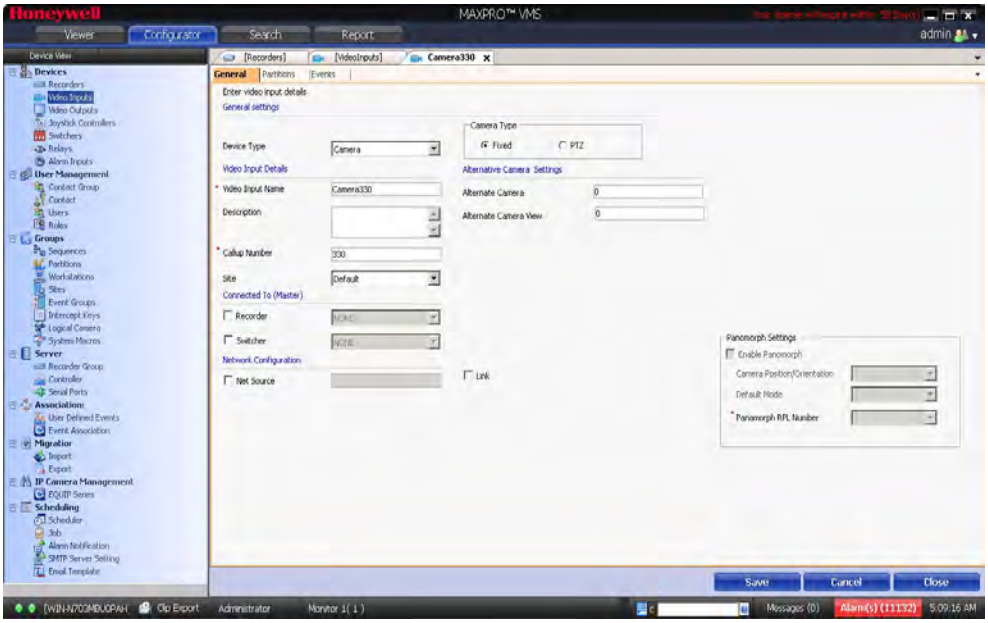


Figure 4-17 Camera Screen

4. From the **Device Type** drop-down list, select the required video input type. The currently supported video input device types are listed in the following table.

Video Input Device	Description
Camera	For details on configuring a camera, see *Adding a Camera*.

Video Input Device	Description
Standard Device	For details on configuring the devices, see *Adding a Video Input Device* on page *162*.
Smart Device	
Trunk	
VCR	
Standby VCR	
Logging VCR	
Menu	
Black Source	
Digital Input Trunk	For details on configuring a digital input trunk, see *Adding a Video Input Device (Digital Input Trunk)*.

5. Associate Partition. See *Associating Partitions to Video Inputs* for more information.
6. Associate Events and Event Attributes. See *Associating Events and Event Attributes to a Video Input* for more information.
7. Associate Analytics. See *Associating Analytics* for more information.

Note: You can associate analytics only for cameras.

8. Click **Save**.

ADDING A CAMERA

Adding a camera involves defining the camera's set up and operation across switchers and recorders. You can update or configure the general settings of a camera to configure PTZ settings and connect a camera to a recorder or switcher.

To configure a camera

1. In the **Camera Type** area, click **PTZ Camera** if the configured camera is PTZ or click **Fixed Camera** if the camera type is fixed.
2. In the **Video Input Details** area, specify the following camera details.

Field	Description
Video Input Name	Type a camera name. The camera name appears in the devices window making it easy to select.
Description	Type a description for the camera.
Callup Number	A unique number that identifies the camera. By default, the next available number is allocated. The operators can use the number to quickly view the live video from the camera using the virtual keyboard.
Site	Location of the camera.

3. In the **Alternative Camera Settings** area, specify the following details.

Settings	Description
Alternate Camera	Type the number of the camera that has to be selected alternate camera option is selected from the context menu while playing or viewing live video. The range of valid camera numbers is 1 – 999999999. Zero (0) is the default value and indicates no alternate camera is defined.
Alternate Camera View	Type the camera view number or preset number to select the preset view for the alternate camera. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected.

4. In the **Connected To** area, select **Recorder**, if you want to connect the camera to a recorder (see *Associating Recorder to a Video Input Device* for more information). Select **Switcher**, if you want to connect the camera to a switcher (see *Associating a Switcher to a Video Input* for more information).

Note: If you select **Recorder** check box then **Input Number (Recorder)** text box is displayed. Type the input number for recorder.

5. Select the **Net Source** box when you want to view a video from a camera connected to the MAXPRO VMS within a network configuration. Specify the following details.

Settings	Description
Net Source	Specify the network node and the camera number from which you want the video input. When the current video input is actually connected to another MAXPRO VMS within a network configuration, the Net Source field is used to specify the exact location and reference for the video input device.
Link	Select if you want to broadcast the status changes and actions performed on the current video input device on the network.
Switcher Settings, Advance Settings, and PTZ control Settings.	• Configure the Switcher Settings and Advance Settings. See *Associating a Switcher to a Video Input* for more information. • Configure the PTZ Control Settings. See *Control Settings* for more information.

To preview video when camera is associated to a recorder

- Select the **Preview** check box to view live video from the camera.
- Click the icon to save the current image in the clip video directory.

- Click the icon to open any saved image in the preview screen and position the camera accordingly.
- Click the icon to delete the image in the preview screen.

Note: Using the preview option, a user can take snapshots of the area to be monitored by the surveillance camera and save them. These snapshots can be used to identify the proper location where the camera needs to be installed so that the desired field of view is obtained. This can also be used to reposition the camera and identify changes in camera field of view.

ASSOCIATING RECORDER TO A VIDEO INPUT DEVICE

Video input devices like cameras and digital input trunk can be associated with different recorders. Video clips are recorded and stored in recorders.

To associate a camera to a recorder

1. In the **Connected To** section, select **Recorder** check box. The **Recorder** drop-down list is enabled.
2. Select the recorder. The device settings for the recorder appear. Perform the instructions listed in the following table.

Recorder Type	Instructions
RapidEye	**Recorder Settings for Fixed Camera Type** • In the **Live Resolution** drop-down list, select a resolution for the recorder. • In the **Live Frame Rate** drop-down list, select a frame rate for the recorder. **Recorder Settings for PTZ Camera Type** • In the **PTZ Sensitivity** drop-down list, select a number for PTZ sensitivity. **Control Settings** • Configure the Control Settings. See *Control Settings* for more information. **Note:** The **Control Settings** tab appears only when PTZ is selected as the **Camera Type**.

Recorder Type	Instructions
Fusion	**Recorder Settings** • In the **PTZ Sensitivity** drop-down list, select a number for PTZ sensitivity.
	Note: The **PTZ Sensitivity** drop-down list is enabled only when you select the PTZ option in the General Settings (See *Adding a Camera* for more information) of the camera. The numbers represent the speed of the PTZ. The higher the number, the more the PTZ speed.
	Control Settings • Configure the Control Settings. See *Control Settings* for more information.
	Note: The **Control Settings** tab appears only when PTZ is selected as **Camera Type**.
Enterprise	**Recorder Settings** • In the **Site ID** box, type the site ID configured in the Enterprise DVR. • In the **Station ID** box, type the station ID configured in the Enterprise DVR. • In the **Device Type** box, type the model of the device. • In the **Device ID** box, type the device ID of the Enterprise DVR. • In the **PTZ Sensitivity** drop-down list, select a number for PTZ sensitivity.
	Note: The **PTZ Sensitivity** drop-down list is enabled only when you select the PTZ option in the General Settings (See *Adding a Camera* for more information) of the camera. The numbers represent the speed of the PTZ. The higher the number, the more the PTZ speed.
	Control Settings • Configure the Control Settings. See *Control Settings* for more information.
	Note: The **Control Settings** tab appears only when PTZ is selected as **Camera Type**. **Note:** The source information is automatically updated when the Discover Cameras feature is used.
HRXD	• In the **Control Settings** tab, configure the Control Settings. See *Control Settings* for more information.
	Note: The **Control Settings** tab appears only when PTZ is selected as **Camera Type**.

Recorder Type	Instructions
Intellex	**Recorder Settings** • In the **Resolution** drop-down list, select the required resolution. • In the **Video Quality** drop-down list, select the required video quality. The range is between 10-100 (compression quality). **Control Settings** • Configure the Control Settings. See *Control Settings* for more information.
	Note: The **Control Settings** tab appears only when PTZ is selected as **Camera Type**.
IPEngine	**Recorder Settings** • In the **Camera Server** drop-down list, select the camera server. • In the **Camera Server Clip Directory** box, type the directory path to save the clips or click Set to camera server installed path to set the camera server installed path for saving clips. • In the **Streamer IP Address** box, type host name or IP address of the streamer. • In the **Streamer type** drop-down list, select the model number of the streamer.
	Note: MAXPRO VMS supports five mega pixel cameras like GrandEye, Sony, HCX, HNVE1, and Pelco.
	• In the **Compression Format** drop-down list, select the required format. MPEG4 and Motion JPEG are the available formats. • In the **Limit Stream By** drop-down list, select the frame rate or network bandwidth to limit streaming. • In the **Stream Type** drop-down list, select the stream type as video or audio. • In the **Frame Delivery** drop-down list, select the delivery type as Unicast or Multicast depending on the requirement. • In the **Video Channel Number** box, type the input number of the streamer to which you are connecting the camera. See *Configuring Cameras for IP Engine* for more information on configuring GrandEye and Axis240Q cameras.
	Note: The **Video Channel Number** field is applicable only to the cameras that support more than one streaming at a time.

Recorder Type	Instructions
	• In the **Video Format** drop-down list, select the type of camera (NTSC or PAL). • In the **Resolution** drop-down list, select the resolution for the video. See *Configuring Cameras for IP Engine* for more information on configuring this field for GrandEye and HSX cameras. • In the **Compression Ratio** drop-down list, select the degree of compression. • In the **GOP** box, type the required group of picture. • In the **Frame Rate** drop-down list, select the number of frames per second while capturing a video. **Control Settings** • Configure the Control Settings. See *Control Settings* for more information.
	Note: The **Control Settings** tab appears only when PTZ is selected as **Camera Type**.
	Advanced (Recorder) Settings • See *Advance Settings for Cameras Connected to the IP Engine* for more information.
MAXPRO NVR	**Recorder Settings** • In the **PTZ Sensitivity** drop-down list, select a number for PTZ sensitivity.

Note: For more details on the camera specifications for other recorders, refer to the manuals that are provided along with the cameras.

CONFIGURING CAMERAS FOR IP ENGINE

The following table lists the special considerations for configuring some of the cameras for IP Engine.

Streamer Type	Fields

GrandEye and Axis 240Q cameras	• In the **Video Channel Number** box, type the input number for the streamer. The valid input number range between 1 to 6.
	• In the **Resolution** drop-down list, select the resolution. The selection of the resolution depends on the input number provided in the Video Channel Number box. The resolution that should be set in the **Resolution** box based on the input number provided is as follows.
	  • 1 to 4 — VCam
	  • 5 — Panorama
	  • 6 — FishEye, VCam-FishEye
	Note: Selecting high resolution for all the streamers might disturb streaming.

HCX	In the **Resolution** drop-down list, selecting a cropped resolution would not display a full field view.

ADVANCE SETTINGS FOR CAMERAS CONNECTED TO THE IP ENGINE

The advance settings of IP Engine help you to configure record settings such as frame rate, deleting clips and pre-recording options. You can also set the camera control options such as PTZ settings and configure motion detection.

You can configure the following settings for a camera that is connected to the IP Engine.

- Record settings (For configuring the user activated and background/ continuous recording). See *Configuring Record Settings for the Cameras Connected to the IP Engine* for more information.
- Camera control settings (For configuring the PTZ settings, camera control protocol, and VCL options). See *Configuring Camera Control for the Cameras Connected to the IP Engine* for more information.
- Motion Detection settings (See *Motion Detection Settings (Video Motion)* for more information) and Object Tracking and Classification settings (For configuring the recording of video when motion is detected). See *Object Tracking and Classification Settings* for more information.
- Schedules (For configuring the scheduled recording). See *Schedules* for more information.

CONFIGURING RECORD SETTINGS FOR THE CAMERAS CONNECTED TO THE IP ENGINE

Before you begin

- Configure the camera settings. See *Adding a Camera* for more information.
- Associate the recorders. See *Associating Recorder to a Video Input Device* for more information.

To configure the record settings

1. Click the **Advanced Settings** tab. The **Record Settings** appear.
2. In the **Record Settings** area, select the **Use same settings as live viewing** check box to use the same settings as live viewing.
3. Configure the settings in the **User or Intercom Activated** area.

The following table lists the settings in the **User or Intercom Activated** area.

Settings	Description
Pre-record for	The duration of video that the IP Engine keeps in memory. When user initiates the recording in viewer tab, the IP Engine inserts this pre-record segment at the start of the recording. Configuring a pre-record period on the recording allows you to view what was happening before the recording started. For example, if you set this to 10 seconds, the recording shows the 10 seconds of video before the recording is activated.
Record for	Duration for which the recording is done after the user action.
Record frame rate	Frame rate at which the video is recorded for user activated recordings
Archive after	Period for which user-activated recordings are available for playback before they are automatically archived. To ensure that the clips are not deleted before archival, set the period lesser than the period in Delete after. The period starts when the recording of the video clip ends.
Delete after	The video clips stored for this period before being automatically deleted. The period starts when the recording of the video clip ends.

4. Configure the settings in the **Background Recording** area. The following table lists the settings in the Background Recording area.

Settings	Description
Start background recording	To start the background/ continuous recording.
Clip duration	The duration of the video clips. The video captured during background recording is broken into numerous clips of the specified duration. Ensure that the duration result in clips of manageable size.
Record frame rate	The frame rate at which video is recorded.

Settings	Description
Archive each clip after	The period for which background recordings are available for playback before they are automatically archived. If set, this must be less than the Delete each clip after period otherwise the clips are deleted before they can be archived. The duration commences at the clip's end date and time.
Delete each clip after	The duration for which background recordings are stored before being automatically deleted. The duration commences at the clip's end date and time.

5. Configure the settings in the **Macro Triggered Recording** area. The following table lists the settings in **Macro Triggered Recording** area.

Settings	Description
Pre-record for	The duration of video that the IP engine keeps in memory for event activated recordings. When event is activated and a recording is started, the IP engine inserts this pre-record segment at the start of the recording. Configuring a prerecord period on the recording allows you to view what was happening before the event was activated. For example, if you set this to 10 seconds, the recording shows the 10 seconds of video before the recording was activated.
Record frame rate	The frame rate at which video is recorded.
Archive event after	The period for which event-related recordings are available for playback before they are automatically archived. If set, this must be less than the Delete after period otherwise, the clips are deleted before they can be archived. The duration commences at the clip's end date and time.
Delete event after	The duration for which event-related recordings are stored before being automatically deleted. The duration commences at the clip's end date and time.
Archive low alarms after	The period for which low alarm recordings are available for playback before they are automatically archived. If set, this must be less than the Delete low alarms after period otherwise, the clips are deleted before they can be archived. The duration commences at the clip's end date and time.
Delete low alarms after	The period for which low alarm recordings are stored before being deleted. The duration commences at the clip's end date and time.
Archive high alarms after	The period for which high alarm recordings are available for playback before they are automatically archived. If set, this must be less than the Delete high alarms after period otherwise, the clips are deleted before they can be archived. The duration commences at the clip's end date and time.
Delete high alarms after	The period for which high alarm recordings are stored before being deleted. The duration commences at the clip's end date and time.

Settings	Description
Archive urgent alarms after	The period for which urgent alarm recordings are available for playback before they are automatically archived. If set, this must be less than the Delete urgent alarms after period otherwise, the clips are deleted before they can be archived. The duration commences at the clip's end date and time.
Delete urgent alarms after	The period for which urgent alarm recordings are stored before being deleted. The duration commences at the clip's end date and time.

6. Configure the settings in the **I/O Activated** area. The following table lists the settings in the **I/O Activated** area.

Settings	Description
Pre-record for	The duration of video that the IP Engine keeps in memory. When user initiates the recording in viewer tab, the IP Engine inserts this pre-record segment at the start of the recording. Configuring a pre-record period on the recording allows you to view what was happening before the recording started. For example, if you set this to 10 seconds, the recording shows the 10 seconds of video before the recording is activated.
Record for	Duration for which the recording is done after the user action.
Record frame rate	Frame rate at which the video is recorded for user activated recordings
Archive after	Period for which user-activated recordings are available for playback before they are automatically archived. To ensure that the clips are not deleted before archival, set the period lesser than the period in Delete after. The period starts when the recording of the video clip ends.
Delete after	The video clips stored for this period before being automatically deleted. The period starts when the recording of the video clip ends.

CONFIGURING CAMERA CONTROL FOR THE CAMERAS CONNECTED TO THE IP ENGINE

You can configure PTZ settings, camera control protocol, and VCL options using the camera control option.

Before you begin

- Configure the camera settings. See *Adding a Camera* for more information.
- Associate the recorders. See *Associating Recorder to a Video Input Device* for more information.

To configure camera control

1. Click **Advanced Settings** tab, by default the **Recorder Settings** tab is displayed.
2. Click the **Camera Control** tab. The **Camera Control** settings appear.
3. Select the type of camera control protocol supported by the camera in the **Camera control type** list. The types include:

- Fixed Camera — no camera control
- Honeywell KD6 (Pelco)
- Honeywell KD6 (VCL)
- Pelco Dome — supports Pelco P protocol
- Sensormatic — supports Sensormatic RS - 485 protocol
- Use streamer settings (The camera control drivers for some of the new Axis streamers such as the Axis 241S/SA, Axis 241Q/QA, and Axis 240Q, might need to be downloaded from the Axis Web site.)
- VCL Orbiter Gold
- VCL Orbiter Lite

Note: Selecting a control type other than fixed causes the PTZ settings to appear in the display area.

4. Configure the PTZ settings.

The following table lists the PTZ settings.

Settings	Description
Pan speed **Tilt speed** **Zoom speed** **Focus speed Iris speed**	(Only applicable to the PTZ live video controls and indicators.) These properties appear only if they are appropriate to the selected Camera Control Type. They specify the speed at which a user can change the camera's movement or focus. The values range between 0 and 100. (The larger the value, the faster the camera movement/focus changes.) You need to optimize these values by testing the camera's operation.
Continuous Pan/Tilt speed	The speed of the mouse and joystick controls. A higher speed results in the mouse or joystick shifting the camera's pan and tilt faster.
Camera hardware ID	Identifies the camera on a multi-dropped cable. This must correspond to the value configured on the PTZ head. (Only applicable to Honeywell KD6 (Pelco) and Honeywell KD6 (VCL), Pelco Dome Camera Control Type, and VCL).

5. In the **Home/Preset Tour** box, select the required tour. **Return to Home Preset** box is enabled.
6. In the **Return to Home Preset** box, type a time in seconds to perform a tour and return to original position.

Note: The Presets section lists the number of presets and the tour name.

If you select VCL Orbiter Gold or VCL Orbiter Lite in the Camera control type option, then the VCL options appear. Set the VCL options according to your requirement.

The following table lists the VCL options and the instructions to set them.

Settings	Description
Flip camera when tilt angle is at 90 degrees	Select the check box to flip camera when tilt angle is 90 degrees
Allow Digital Zoom	Select the check box to allow digital zoom for the camera.
Enable infrared sensitive mode in low light	Select the check box to enable infrared sensitive mode for the camera when there is low light.

1. In the **VCL Tours** section, select the required tour from the **Tours** list.
2. Click **New** button to create new tours.

MOTION DETECTION SETTINGS (VIDEO MOTION)

Configuring motion detection involves defining one or more Region of Interest (ROI) in the field of view. Rectangles or polygons are drawn in the field of view to specify the regions of interest, and then the motion detection algorithm is tuned within those regions.

Some of the considerations while configuring motion detection are:

- If the streamer supports streamer-based motion detection, use it to reduce the load on the computer.
- Motion detection recording and alarming is disabled while you are tuning motion detection (when you click Start Tuning).
- If you select the Premium algorithm, the algorithm uses the first 20 frames to learn the statistics of the field of view, and the next 60 frames to set up the information learned during the first 20 frames. Therefore motion is not detected in the field of view during the first 80 frames.

Before you begin

- Configure the camera settings. See *Adding a Camera* for more information.
- Associate the recorders. See *Associating Recorder to a Video Input Device* for more information.

To configure the motion detection

1. Click the **Advance Settings** tab by default the Record Settings tab appears.
2. Click the **Video Analytics** tab.
3. Select the **Video Analytics enabled** check box.

4. Use the **General properties** to set the algorithm, motion server, and detection type. The following table lists the General properties and the instructions to configure them.

Settings	Description
Algorithm	Select Standard (Low CPU) or Premium (High CPU).
Motion Server	The Video Analytics Server you want to use to run the algorithm. (Only applicable to server-side algorithms.)
Detection Type	Select: • **Continuous** - 24 hours a day, 7 days a week. • **Scheduled** - the time(s) at which motion detection is enabled is specified in one or more schedules. See *Schedules* for more information. **Note:** Changing from Scheduled to Continuous deletes all video analytics schedules for the camera. The default is **Continuous**.

5. Click **Start tuning**.
6. Use the **ROI** to define one or more regions. See *Defining Regions of Interest* for more information.
7. Use the **tuning** properties to set motion detection frame rate and sensitivity. Check if the algorithm is operating as required. (Tuning the algorithm's operation is typically an iterative task - you may have to change the values several times before you achieve satisfactory results.) See *Tuning Properties* for more information.
8. When satisfactory results are obtained, click **Finish tuning**.
9. Configure the **When motion is detected** properties as required. See *When Motion is Detected Properties* for more information.
10. Click **Save**.

DEFINING REGIONS OF INTEREST

To define a rectangular region of interest

1. Click and drag the pointer diagonally over the area that you want the IP engine to track and classify objects. As you drag, a box marks the region of interest.

To define an irregular region of interest

1. Move the pointer to the location of the first vertex, and then click to mark its location.
2. Drag the mouse pointer to the place you want to add the next vertex and release the mouse button.
3. Click and drag the mouse pointer to the place you want to add the next vertex and release the mouse button.
4. Repeat step 3 for each of the other vertex, (you can have up to 10 vertices), except the last vertex.
5. Double-click to mark the last vertex or drag the mouse pointer to the first vertex of the shape and release the mouse button.

Note: To cancel the task of defining a region of interest, right-click or press the **ESC** key.

To select a region of interest

Click the region of interest to select it. (If regions of interest overlap, click the edge of the region to select.)

To modify a region of interest

1. Click the region of interest to select it. Selection handles appear.
2. Drag a selection handle as required. The vertices move as you drag.

To modify an irregular region of interest

1. Double-click at the point where you want to add a new vertex.
2. Drag the selection handle to create the new shape for region of interest.

To move a region of interest

1. Click the region of interest to select it.
2. Drag it to its new location.

Note: Dragging it by a selection handle might change its shape.

To delete a vertice

- Click the vertice and drag it onto the vertice next to it to merge them.

To delete a region of interest

1. Click the region of interest to select it.
2. Press **DELETE**.

TUNING PROPERTIES

Algorithm tuning properties involves configuring the motion detection by a camera depending on the frame rate of the motion, size of the object involved in motion and speed of the object involved in motion.

1. Click **Start tuning**, and then configure the settings for Standard (Low CPU) or Premium (High CPU) as per the algorithm you selected.

Standard (Low CPU) algorithm

The following table list the Standard (low CPU) algorithm tuning properties.

Settings	Description
Detection frame rate	The frame rate you want the motion detection algorithm to detect a motion. (An object is considered to be “moving” if it moves inside a region of interest for at least two consecutive frames.) The chance of motion being detected depends on: • The frame rate—a higher frame rate increases the chance of motion being detected. • The size of the region of interest—the larger the region of interest, the longer the object takes to move through it, increasing the chance of motion being detected. • The speed of the object—the faster the object moves the shorter is the amount of time required to pass through the region of interest, thereby decreasing the chance of motion being detected. The default frame rate is 3 frames per second. A higher frame rate increases the chance of a fast moving object being detected. The bandwidth at which the frames delivered is displayed. If you are using HNVE130A MPEG streams, VMD uses I-frames for video motion detection and the options available for this option are Every I-frame and Every second I-frame and so on. When you select this option, the frame rate given to the VMD algorithm is displayed. **Note:** This setting has a high impact on the loading of the server (the higher the frame rate the higher the load on the CPU) and impacts the bandwidth used by the streamer when motion detection is activated.
Optimize for movement	(Applicable to the selected region of interest). Select the option you want to optimize the algorithm to detect the movement of any object. The options are: • In any direction (the default) • Across field of view • To/from camera
Sensitivity	(Applicable to the selected region of interest). Indicates how sensitive the algorithm must be to detect movement. Values are between 1 and 100 and the higher the value the more sensitive to motion. The default is 40%. **Note:** If the viewing resolution is changed, it affects this value.

PREMIUM (HIGH CPU) ALGORITHM

The following table list the Premium (High CPU) algorithm tuning properties.

Settings	Description
Detection frame rate	The detection frame rate description for Premium (High CPU) Algorithm is same as Standard (Low CPU) algorithm. Refer *page 132*.
Sensitivity	Specify whether the camera is aimed at an Indoors (High) or Outdoors (Low) scene. The default is Indoors (High).
Sub-sampling	Reduces the effective resolution of the image used for detecting motion. The greater the level of sub-sampling, the lower the load on the CPU required for motion detection. The values are: • 1—no sub-sampling (the resolution of the image is not changed) • 2—the resolution of the image and the load on the CPU are halved • 4—the resolution of the image and the load on the CPU are quartered The default is 2. **Note:** Increasing the sub-sampling might increase the chance of a false detection.
Minimum object size	Select the minimum size of an object for which motion can be detected, expressed in pixels. The minimum size you can specify is limited by the sub-sampling property, according to the following formula: 4 x (sub-sampling)2. For example, if you set sub-sampling to 2, the minimum object size you can specify is 16 pixels. The maximum object size is 64 pixels. If objects in the scene you want to detect motion are large, increasing the minimum object size can prevent false detections caused by small movement changes

WHEN MOTION IS DETECTED PROPERTIES

Specify the **When Motion is Detected** properties as follows:

Settings	Description
Consider motion finished after	The length of time, after motion was last detected, that motion is considered to have stopped. This property affects **When motion is detected** properties as follows: • A new alarm is not generated before this time has expired. • A new recording does not start before this time has expired. If you set the Record for property to until motion finishes, recording continues until this time has expired. • Video is not resent to a Station until this time has expired. • If you have a lot of false detections occurring, increasing this value helps. • If your motion detection recordings are configured to stop when the motion stops, and does not stop as anticipated, decreasing this value might help.
Generate an alarm	When checked, sends an alarm to the EBI, Experion, or HSS server at the specified Alarm level when motion is detected. **Note:** The alarm is not latched to a point.
Alarm level	The alarm level can be of type: • Urgent • High • Low • Journal (the default) All alarms, except Journal, appear in Station's Alarm Summary. Journal alarms do not appear in the Station Alarm Summary, but are written to the event file and appear in the Event Summary. Ensure that all operators who are required to view these alarms have access to the EBI, Experion, or HSS system area in which the alarms are being raised. This area is the same as the camera's configured area.
Start a recording	Starts a recording when motion is detected. Selecting this allows you to specify Pre-record for, Record for, Record frame rate, and Archive after, and Delete after properties for video clips created when motion is detected.

Settings	Description
Pre-record for	The duration of video that the IP engine keeps in memory for motion detection recordings. When motion is detected and a recording is started, the IP engine inserts this pre-record segment at the start of the recording. Configuring a pre-record period on the recording allows you to view what was happening immediately before the motion was detected and a recording started. For example, if you set this to 10 seconds, the recording shows the 10 seconds of video before the recording was activated.
Record for	The length of time (in seconds) recording takes place after motion is detected. If you select Until motion finishes, the recording continues until no motion is detected in the scene for the length of time specified in the Consider motion finished after property.
Record frame rate	The frame rate at which video is recorded for motion detection recordings.
Archive after	The period for which a motion detection recording is available for playback before being archived. The duration commences at the video clip's end date and time.
Delete after	The duration for which motion detection recordings are stored before being automatically deleted. The duration commences at the clip's end date and time.
Send video to station	If selected, video is automatically shown in the specified Station(s) when motion is detected. If a Station has an alarm monitor, the video is displayed on the alarm monitor.
Station number	The number of the Station that the video is sent to, if you select the Send video to Station(s) check box.
All stations in area	The area containing the Stations that the video is sent to, if you select the Send video to Station(s) check box.

OBJECT TRACKING AND CLASSIFICATION SETTINGS

Configuring object tracking and classification involves defining one or more Regions of Interest (ROI) - rectangles or polygons in the field of view, and then tuning the operation of the associated tracking algorithm within those regions.

In addition to defining the ROI, you must define:

- The minimum size of the object to be tracked.
- The condition that an object must meet for each region of interest before the network recorder takes the specified action—such as raising an alarm or starting a recording.

Before you begin

- Configure the camera settings. See *Adding a Camera* for more information.
- Associate the recorders. See *Associating Recorder to a Video Input Device* for more information.

To configure object tracking and classification

1. Click the **Advance Settings** tab. The **Record Settings** appears.
2. Click the **Video Analytics** tab.
3. Select the **Video Analytics** enabled check box.
4. Use the **General** properties to set the algorithm, motion server, and detection type. The following table lists the General properties and the instructions to configure them.

Settings	Description
Algorithm	Select Standard (Low CPU) or Premium (High CPU).
Motion Server	The Video Analytics Server you want to use to run the algorithm. (Only applicable to server-side algorithms.)
Detection Type	Select: • **Continuous** - 24 hours a day, 7 days a week. • **Scheduled** - the time(s) at which motion detection is enabled is specified in one or more schedules. See *Schedules* for more information. **Note:** Changing from Scheduled to Continuous deletes all video analytics schedules for the camera. The default is **Continuous**.

5. Click **Start tuning.**
6. Use the regions of interest to define one or more regions. See *Defining Regions of Interest* for more information.
7. Define the Minimum size of an object that is to be tracked. See *Defining the Minimum Object Size* for more information.
8. Use the tuning properties to set motion detection frame rate and sensitivity. See *Tuning Properties for Object Tracking* for more information.
9. Click Finish tuning if the tuning properties are satisfactory.
10. Configure the conditions for current ROI that moving objects must meet for each region of interest. See *Defining Conditions* for more information.

DEFINING THE MINIMUM OBJECT SIZE

The minimum object size that is tracked by the algorithm is defined by a magenta rectangle.

Note: The position of the rectangle is not relevant for defining the minimum object size.

To define the minimum object size

1. Select the rectangle. Its selection handles appear.
2. Drag a selection handle until the rectangle is of the required size and shape.

TUNING PROPERTIES FOR OBJECT TRACKING

Settings	Description
Detection frame rate	The rate at which you want the algorithm to run. The default is 5 frames per second. This setting has a high impact on the loading of the server. The higher the frame rate, the higher the load on the CPU. It impacts the bandwidth used by the streamer when object tracking is activated. The chance of motion being detected depends on: • The frame rate—a higher frame rate increases the chance of motion being detected. • The size of the region of interest—the larger the region of interest, the longer the object takes to move through it, increasing the chance of motion being detected. • The speed of the object—the faster the object moves the shorter is the amount of time required to pass through the region of interest, thereby decreasing the chance of motion being detected. If you are using HNVE130A MPEG streamers, AVPS uses I-frames for video motion detection and the options available for this option are Every I-frame and Every second I-frame and so on. When you select this option, the frame rate given to the AVPS algorithm is displayed.
Sensitivity	Indicates whether the scene is indoor or outdoor.
Shadow correction	If there are many shadows in the scene, turn shadow correction on, to reduce the risk of false detections. Turning this setting on, has a high impact on the loading of the server.
Processing Type	Indicates whether the algorithm analyzes the entire image (Full Frame) or only the regions of interest drawn (ROI Only). Full Frame processing provides more accurate results—especially for small regions of interest—because it can track objects over the whole frame. The larger the area in which the object might move and the longer it takes to move in the area, the camera has to classify more information and the detection is more accurate. However, it does increase the load on the CPU. **Note:** Even if you select Full Frame, the conditions (and associated responses, such as raising alarms) only apply if the object enters a region of interest.

DEFINING CONDITIONS

You can define the condition or conditions that the moving objects must meet for each region of interest.

To define a condition

1. In the **Region Name** box, type the name of the region.
2. Click **New**. A condition row is added to list.
3. Define the condition by selecting appropriate values for the three condition properties: Object type, Behavior and Direction. The following table lists the settings to define the condition.

Note: As you select a value for each property, the condition in the list is updated.

Settings	Description
Object type	The type of object you want the algorithm to detect. Valid types are: • person • vehicle • other Object • any Object When any Object is selected, it detects any moving object greater than the minimum object size. **Note:** You cannot select Object type when using the object tracking algorithm. It is available only when using the object tracking and classification algorithm.
Behavior	The object's behavior that triggers the event. Valid behaviors are: • Enter—enters the region • Exit—exits the region • Any behavior—matches any behavior Start and stop are only applicable if the Processing type property is set to Full Frame.
Direction	The direction in which the object must move to trigger the event (the exact wording depends on whether you set behavior to enter or exit): • to/from the Right • to/from the Left • to/from the Bottom • to/from the Top • any Direction **Note:** Direction is with respect to the field of view—not the ROI, which may have an irregular shape.

4. Configure the settings to define what should happen when an object satisfies the condition. The following table lists the settings and their description.

Settings	Description
Generate an alarm	Sends an alarm to the EBI, Experion, or HSS server at the specified Alarm level when an object satisfies the condition. **Note:** The alarm is not latched to a point.
Alarm level.	The level of the alarms that are generated: • Urgent • High • Low • Journal (the default) All alarms, except for Journal, appear in Station's Alarm Summary. Journal alarms does not appear in the Station Alarm Summary, but are written to the event file and appear in the Event Summary. Ensure that all operators who are required to view these alarms have access to the EBI, Experion, or HSS system area in which the alarms are being raised.
Start a recording	Selecting this allows you to specify Pre-record for, Record for, Record frame rate, and Archive after and Delete after properties for video clips created when an object satisfies the condition.
Pre-record for	The duration of video that the IP engine keeps in memory for motion detection recordings. When motion is detected and a recording is started, the IP engine inserts this pre-record segment at the start of the recording. The pre-record period on the recording allows you to view what was happening immediately before the motion was detected and a recording started. For example if you set this to 10 seconds, the recording shows the 10 seconds of video before the recording was activated.
Record for	The length of time (in seconds), the recording takes place after motion is detected. If you select Until motion finishes, the recording continues until no motion is detected in the scene for the length of time specified in the Consider motion finished after property.

Settings	Description
Record frame rate	The frame rate at which video is recorded for motion detection recordings.
Archive after	The period for which a motion detection recording is available for playback before being archived. The duration commences at the video clip's end date and time. If set, this must be less than the Delete after period.
Delete after	The duration for which motion detection recordings are stored before being automatically deleted. The duration commences at the video clip's end date and time.
Send video to station(s)	If selected, video is automatically shown in the specified Station(s) when an object satisfies the condition. If a Station has an alarm monitor, the video is displayed on the alarm monitor.
Station number	The number of the Station that the video is sent to, if you select the Send video to Station(s) check box.
All stations in area	The area containing the Stations that the video is sent, if you select the Send video to Station(s) check box.
Do not raise repetitive events for the same object for	The length of time, after the object has moved outside the region of interest, new alarms, recordings and video streams to Station are reserved. This property affects the other properties in this table as follows: • A new alarm is not generated until this time has expired. • A new recording does not start until this time has expired. In addition, if you set the Record for property to While object in the region, recording continues until this time has expired. • Video is not re-sent to a Station until this time has expired.

SCHEDULES

A schedule defines the date and times when recording and video analytics (motion detection, and object tracking and classification) functions are enabled for a camera. A recurring schedule is a schedule that occurs at regular intervals.

CREATING A SCHEDULE

You can create schedules for the camera to record video at recurring intervals and to enable camera to record motion detection and object tracking at a stipulated time.

To create a schedule

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Video Inputs**. The **Video Inputs** screen appears in the display area.
3. Double-click the camera or select the camera, and then click **Update**. The general settings for the camera appear.
4. Click the **Advance Settings** tab.
5. Click the **Schedules** tab, and then click **Create a new schedule**.
6. Configure the Schedule Details according to your requirement.

The following table lists the settings for configuring a schedule.

Type	Settings
Type	The type of schedule: • Recording—records video as specified in the schedule. • Video Analytics—controls when video analytics is enabled for the camera.
Start **End**	The date and time at which the schedule starts and stops. To specify the time, click each unit (hour and minute) and type the appropriate value.
Note	Description or comments about the schedule.
Frame rate	(Only applies to Recording schedules.) The frame rate at which the video is recorded.
Archive after	(Only applies to Recording schedules.)The period for which scheduled recordings are available for playback before they are automatically archived. If set, this must be less than the Delete after period.
Delete after	(Only applies to Recording schedules.) The time the recording is stored before it is automatically deleted.
Recurrence Details	
Recurring	Select No, if you want only one recording. Otherwise, select how often you want the recording to take place: • Daily • Weekly • Monthly
End after	(Only applicable if you select recurring.) If you want to create a recurring schedule that never expires, you must consider using background recording. The number of days before the schedule expires.

7. Click **OK**. The schedule is created.

Note: Clicking **Cancel** terminates the configured schedule.

DELETING A SCHEDULE

You can delete a schedule for the camera when you do not want to record video at recurring intervals and disable camera from recording motion detection and object tracking at a stipulated time.

To delete a schedule

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **Cameras** branch.
4. The **Cameras** screen appears in the display area.
5. Double-click the camera or select the camera, and then click **Update**.The general settings for the camera appear.
6. Click the **Advance Settings** tab.
7. Click the **Schedules** tab.
8. Select the start day for the schedule in **Schedules on**. The schedules for that day appear in the list. Ensure that you are deleting the right schedule.
9. Select the schedule you want to delete from the list. The schedule's details appear.
10. Click **Delete**, and then click **Yes** in response to the confirmation prompt.

To delete a recurring schedule

1. Select the start day for the schedule in Schedules on. The schedules for that day appear in the list.
2. Select the schedule you want to delete from the list. The details of the schedule appear.
3. Click **Delete** only if you want to delete the schedule occurrence on that day. If you want to delete all occurrences of the schedule, click Delete all occurrences. (This button appears only when you select a recurring schedule.)

ASSOCIATING A SWITCHER TO A VIDEO INPUT

Switchers are devices that route multiple video inputs to multiple video outputs. You can associate video input devices like analog cameras, smart device, VCRs, and so on to a switcher. You can also configure switcher parameters like switcher input number, macros, and slot number.

CONFIGURING THE SWITCHER SETTINGS

1. In the **Connected to** section, click **Switcher**. The **Switcher** drop-down list is enabled.
2. Select the required switcher. The **Switcher Settings** appear.
3. In the **Input Number** box, type the video input number on the subrack.
4. In the **Device Macro Flags** section, select the required fields to set the macro flag to True. This field allows for definition of the default cold boot state of the macro flags for the current video input device. Click **Select All** to set all the macro flags to True.
5. Under **Pretext Settings**, in the **Pretext SubrackID** box, type the address of the subrack which contains the text insertion card. The valid range of subrack addresses is 1 - 799, a value of 0 indicates pretext is not used.

6. In the **Pretext SlotNumber**, type slot number within the pretext subrack where the text insertion card resides. The valid range of slot numbers is 1 - 32.
7. In the **X** and **Y** boxes, type the location of the camera text to be displayed on the monitor. Valid positions are 1-13.

CONFIGURING CONTROL SETTINGS

- Configure the *Control Settings* for the switchers.

CONFIGURING ADVANCED SETTINGS FOR MAXPRO AND VIDEOBLOX

1. Click the **Advanced Settings** tab. The Advanced Settings screen appears.

Note: In the **Primary Subrack ID**, the ID that is associated while adding a switcher is displayed by default.

---

2. In the **ByPass Subrack ID** box, type the address of the subrack which must be bypassed when selecting the current video input device.

Note: For VideoBlox subrack, the Bypass subrack ID value must be 1-16, depending on the input device number. For the first 1-255 physical inputs, the bypass ID is 1, and for the next 1-255 inputs, the bypass ID is 2, and so on.

---

3. In the **Combiner Subrack ID** box, type the ID for cascading and combining configurations. In a cascading configuration consisting of three subracks, the Combiner Subrack ID contains the address of the second subrack that is to be bypassed when selecting the current video input device.The valid address values range from 0 (signifying no cascading or combining are used) through 99.
4. In the **Combiner Input Number** box, type the address to which the preselector subrack for the current video input is connected.
5. In the **Dynamic Equalization** box, type the value between 1 and 8 to represent the cable length between the video input and the switcher. It serves to improve video quality by compensating for cable related transmission losses.

Note: The values 1 - 8 represent one hundred meters of RG-59/BU units coaxial cable.

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6. In the **Video Fail Slot** box, type the slot number where the video fail detector module is located.

Note: The valid subrack slot numbers are 11 - 14. HD Series subracks (HMX32128) perform video fail detection on the HMX128 subrack controller card. This is mapped to pseudo slots as follows:

Video Input	Video Fail Slot
1 - 32	11
33-64	12
65-96	13
97-128	14

Note: For VideoBlox subrack, the Video fail slot must be 1. Enter 0, if video fail detection is not required.

7. In the **Start Macro** box, type the desired macro number to execute Start Macro, whenever a video alarm condition is detected for the corresponding video input device.
8. In the **End Macro** box, type the desired macro number. The End Macro is executed whenever the video alarm condition is cleared.

CONTROL SETTINGS

1. Select the **Locked** check box to prevent the user to control the device.
2. From the **PTZ Done By** drop-down list, select the required PTZ type.

The following table lists the PTZ types and steps to configure their settings.

Type	Settings
Device	This setting is used when the PTZ camera is controlled using the recorder. The PTZ settings are done using the local applications of the recorder except for IP Engine. To configure PTZ settings for a IP Engine camera, see *Configuring Camera Control for the Cameras Connected to the IP Engine* for more information.

Type	Settings
Serial Port	The followings settings are used when a PTZ camera is controlled by MAXPIT or MATPIT. a. In the **Select Serial Port** drop-down list, select the serial port. b. In the **Source Control ID** box, a default ID is displayed. c. In the **Source Control Slot** box, type the slot number within the control subrack where the controller for the current video input device resides. **Note:** Valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks and 1 – 8 for HD Series subracks. Within subracks such as HMX1132 and HMX1600, the control slot is the physical slot where the controller card resides. Whereas within HD Series subracks (HMX32128) device control and I/O functions are mapped to pseudo slots as all of these functions exist on the subrack controller card (HMX128) located in slot 0. For VideoBloxsubrack, the control slot number should be greater than zero.Valid range: 1 to 4. d. In the **Offset** box, type the ID number of the PTZ site receiver connected to that camera. **Note:** The valid range for site IDs is 1 – 16. A 0 indicates that a hardwired relay output module is being used in the subrack slot for controlling that camera. Offset is the hardware address configured in the PTZ camera.
Switcher	The followings settings are used when a PTZ camera is controlled by a matrix switcher. a. In the **Select Switcher** drop-down list, select the switcher. b. In the **Source Control ID** box, a default ID is displayed. **Note:** The valid range for Control ID is 1 – 799, a value of 0 indicates no control capability for the device. c. In the **Source Control Slot** box, type the slot number within the control subrack where the controller for the current video input device resides. **Note:** Valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks and 1 – 8 for HD Series subracks. Within subracks such as HMX1132 and HMX1600, the control slot is the physical slot where the controller card resides. Whereas within HD Series subracks (HMX32128) device control and I/O functions are mapped to pseudo slots as all of these functions exist on the subrack controller card (HMX128) located in slot 0.For VideoBlox subrack, the control slot number should be greater than zero. Valid range: 1 to 4. d. In the **Offset** box, type the ID number of the PTZ site receiver connected to that camera. **Note:** The valid range for site IDs is 1 – 16. A 0 indicates that a hardwired relay output module is being used in the subrack slot for controlling that camera. Offset is the hardware address configured in the PTZ camera.

3. In the **PTZ Viewer Sensitivity** drop-down list, select the required sensitiveness.
4. In the **Available Control Options** area, select the options to enable or disable the control functions. The available control functions vary between the different types of video input device as shown in the following figures.

The following tables lists the available control functions for different types of video input devices.

Camera	VCR or LoggingVCR or Standby VCR	Standard Device or Smart Device
Wash/Wipe	Record	Output1
Manual Iris	Play	Outpu2
Pan	Rewind	Output3
Tilt	Fast Forward	Output4
Focus	Slow	Output5
Zoom	Pause	Output6
Present View	Eject	Output7
Ext/Walk/Flashback	Stop	Output8

The following table lists the special considerations for configuring some of the cameras for IP Engine.

Streamer Type	Fields

GrandEye and Axis 240Q cameras	• In the Video Channel Number box, type the input number for the streamer. The valid input number range between 1 to 6.
	• In the Resolution drop-down list, select the resolution The selection of the resolution depends on the input number provided in the Video Channel Number box. The resolution that should be set in the Resolution box based on the input number provided is as follows.
	  • 1 to 4 — VCam
	  • 5 — Panorama
	  • 6 — FishEye, VCam-FishEye
	Note: Selecting high resolution for all the streamers might disturb streaming.

HCX	In the **Resolution** drop-down list, selecting a cropped resolution would not display a full field view.

ASSOCIATING EVENTS AND EVENT ATTRIBUTES TO A VIDEO INPUT

You can associate one or more events to a video input. An alarm is triggered whenever any of the associated event occurs for the video input. For certain events, you can also associate event attributes. For example, for an Encoder Disabled event, you can associate attributes such as Encoder Name, Encoder ID and so on. For every attribute that you associate, you can set a value based on which the event is triggered. In the above example, you can associate the attribute Encoder Name to the event and set its value as Encoder A. When this event is associated to the video input, an alarm is raised when the event "Encoder Disabled" occurs for the Encoder Name "Encoder A".

Attributes are available only for certain events. These events can be associated to a video input multiple times. The event attributes are listed in the details of the alarm in **Alarm** window. To view the event attributes of an alarm, right-click the alarm, and then click **Show Details**.

Before you begin

- Add a Video Input

ASSOCIATING EVENTS

To associate events to video inputs

1. Click the **Events** tab. The screen displays the associated events, if any.

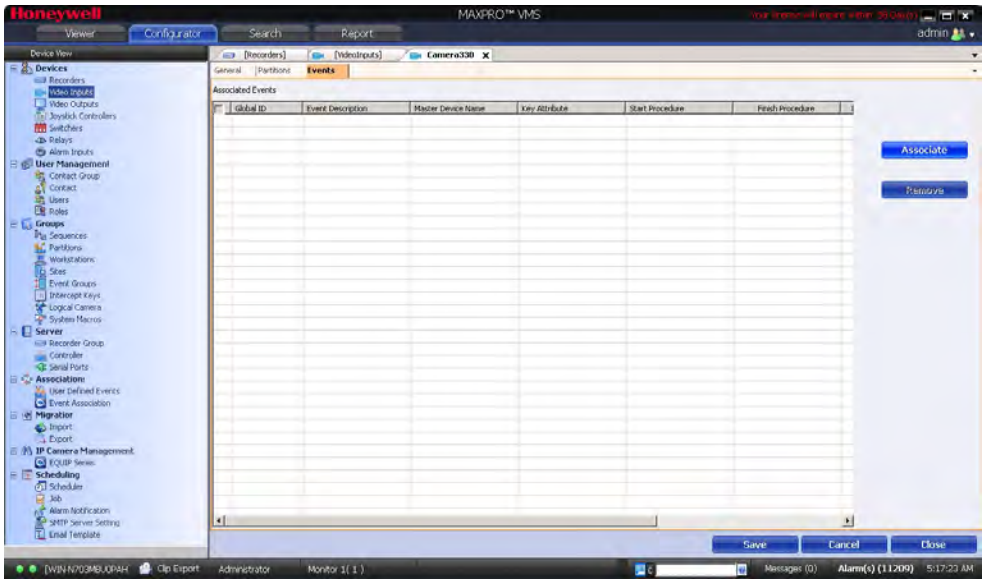


Figure 4-18 Camera Events

2. Click **Associate**. The **Select from List** dialog box appears.

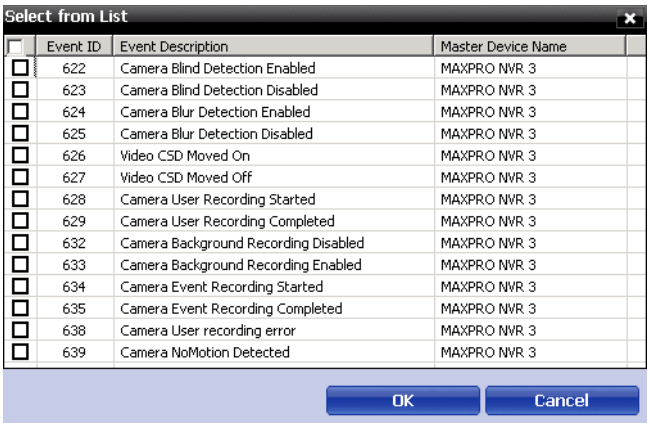

Select from List
Event ID
Event Description
Master Device Name
622 Camera Blind Detection Enabled MAXPRO NVR 3
623 Camera Blind Detection Disabled MAXPRO NVR 3
624 Camera Blur Detection Enabled MAXPRO NVR 3
625 Camera Blur Detection Disabled MAXPRO NVR 3
626 Video CSD Moved On MAXPRO NVR 3
627 Video CSD Moved Off MAXPRO NVR 3
628 Camera User Recording Started MAXPRO NVR 3
629 Camera User Recording Completed MAXPRO NVR 3
632 Camera Background Recording Disabled MAXPRO NVR 3
633 Camera Background Recording Enabled MAXPRO NVR 3
634 Camera Event Recording Started MAXPRO NVR 3
635 Camera Event Recording Completed MAXPRO NVR 3
638 Camera User recording error MAXPRO NVR 3
639 Camera NoMotion Detected MAXPRO NVR 3
OK
Cancel

Figure 4-19 Select from List

3. Select the check box corresponding to the event you want to associate.
4. Click **OK**.

To disassociate events to video input

- Select the check box corresponding to the event, and then click Remove.

To add Event Groups to events

1. Select the check box corresponding to the event for which you want to add the Event Group.
2. Double-click the cell under the **Event Group** column. Select **EventGroup** dialog box appears.
3. Click the check box corresponding to the **Event Group** you want to add.
4. Click **OK**.

Note: You need to add an event group before you associates it to an event. See *Adding an Event Group* for more information.

To disable an event

1. Select the check box corresponding to the event you want to disable.
2. Click the cell under the **Disabled** column. A drop-down list is enabled.
3. Select **True**.

To assign severity level

1. Select the check box corresponding to the event you want to assign the severity level.
2. Click the cell under the **Severity Level** column and edit the severity level.

Note: Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

To enter remarks

1. Select the check box corresponding to the event you want to enter remarks.
2. Click the cell under the **Remarks** column and type the remarks.

To assign macros

1. Select the check box corresponding to the event you want to assign macros.
2. Click the cell under the **Start Procedure** column, and then type the required macro.
3. Click the cell under the **End Procedure** column, and then type the required macro.

ASSOCIATING EVENT ATTRIBUTES

Before you begin

- Associate events.

To associate event attributes

1. Select the check box corresponding to the event for which you want to associate event attributes. The **Event attributes Settings** appear in the lower pane.
2. Click **Associate**. The **Select Available Event Attributes** dialog box appears.
3. Select the check box corresponding to the event attributes that you want to associate.
4. Click **OK**.

To disassociate event attributes from a video input

- Select the check box corresponding to the event attribute, and then click **Remove**.

The following tables describes the event name, event attributes, and their description.

Recorder (to which camera is connected)	Event Name	Event Attributes	Attribute Description
IP Engine	CameraVideoLossOk	StreamerVideoInputNumber	Numeric values from 1 to maximum channels supported by streamer.
	CameraVideoLossAlarm	StreamerVideoInputNumber	Numeric values from 1 to maximum channels supported by streamer.
	CameraServerChanged	OldCamServer	Machine name of the Camera Server.
		NewCamServer	Machine name of the Camera Server.

The following tables describes the event name, event attributes, and their description related to cameras with analytics.

Events	Event Attributes	Attribute Description
Video lost in analytics server	Server name	Server name
Video restored in analytics server	Server name	Server name
Camera Blind Detected	Camera blind	Camera blind in percentage
Camera Blur Detected	Camera blur	Camera blur in percentage
Scene changed	Scene changed	Scene changed in percentage
Car counted in lane	Object count	Car count
Car entered restricted zone	Zone information	Zone information
Car exited restricted zone	Zone information	Zone information
Car parked in handicapped zone	Zone information	Zone information
Entered target zone	Object type	Object type
	Zone information	Zone information
Object entered restricted zone	Object type	Object type
	Zone information	Zone information
Person counted as entering	Object count	Object count
	Zone information	Zone information
	Object type	Object type
Person counted as exiting	Object count	Object count
	Zone information	Zone information
	Object type	Object type
Person entered restricted zone	Zone information	Zone information
Person exited restricted zone	Zone information	Zone information
Person loitering in restricted zone	Zone information	Zone information
Staying in target zone	Object type	Object type
	Zone information	Zone information

Events	Event Attributes	Attribute Description
Object trespassing line	Object type	Object type
	Zone information	Zone information
Person trespassing line	Zone information	Zone information
Car trespassing line	Zone information	Zone information
Object started moving in wrong direction	Object type	Object type
	Zone information	Zone information
Object stopped moving in wrong direction	Object type	Object type
	Zone information	Zone information
Person started moving in wrong direction	Zone information	Zone information
Person stopped moving in wrong direction	Zone information	Zone information
Car started moving in wrong direction	Zone information	Zone information
Person on fence line	Zone information	Zone information
Car made an illegal U-turn	Zone information	Zone information
Car pulled off the road	Zone information	Zone information
Person running in the wrong direction	Zone information	Zone information
Person started running	Zone information	Zone information
Person stopped running	Zone information	Zone information
Car needs assistance	Zone information	Zone information
Object entered	Object type	Object type
	Zone information	Zone information
Object exited	Object type	Object type
	Zone information	Zone information
Object stopped	Object type	Object type
	Zone information	Zone information
Object started moving	Object type	Object type
	Zone information	Zone information

Events	Event Attributes	Attribute Description
Object merged	Object type	Object type
	Zone information	Zone information
Objects split	Object type	Object type
	Zone information	Zone information
People passed by	Object type	Object type
	Zone information	Zone information
Object entered sterile zone	Object type	Object type
	Zone information	Zone information
Car entered sterile zone	Zone information	Zone information
Person entered sterile zone	Zone information	Zone information

ASSOCIATING PARTITIONS TO VIDEO INPUTS

You can associate partition to cameras. Associating a partition to a camera restricts a non-associated user of the partition from viewing the camera or changing the settings of the camera.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partitions to video inputs

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.

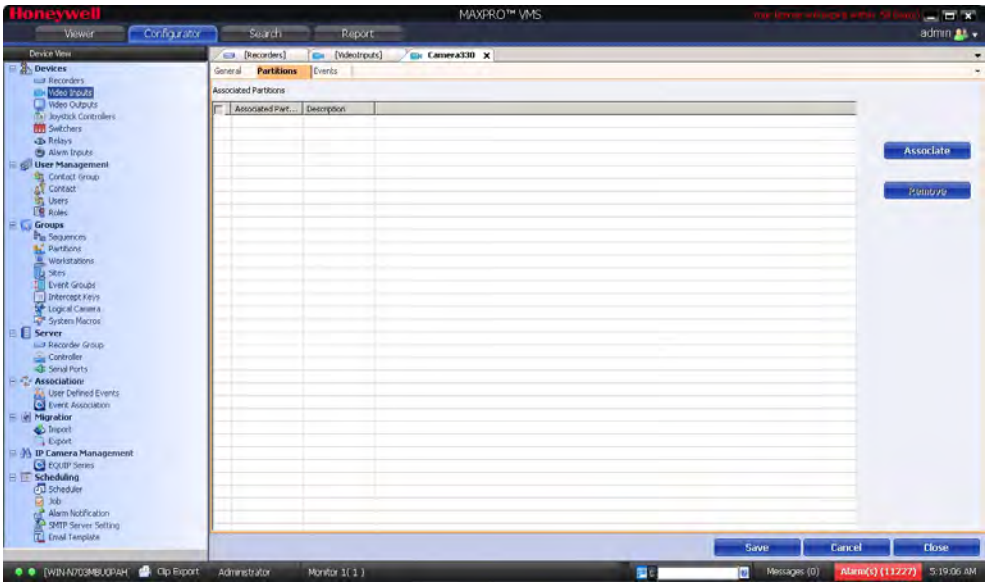


Figure 4-20 Camera Partitions

2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.

4. Click **OK**. The selected partition is displayed in the list of associated partitions.

To disassociate partitions to camera

- Select the check box corresponding to the partition name, and then click **Remove**.

ASSOCIATING ANALYTICS

Before you begin

Add Analytics Server. See *Adding an Analytics Server* for more information.

To associate analytics

1. Click the **Analytics** tab.

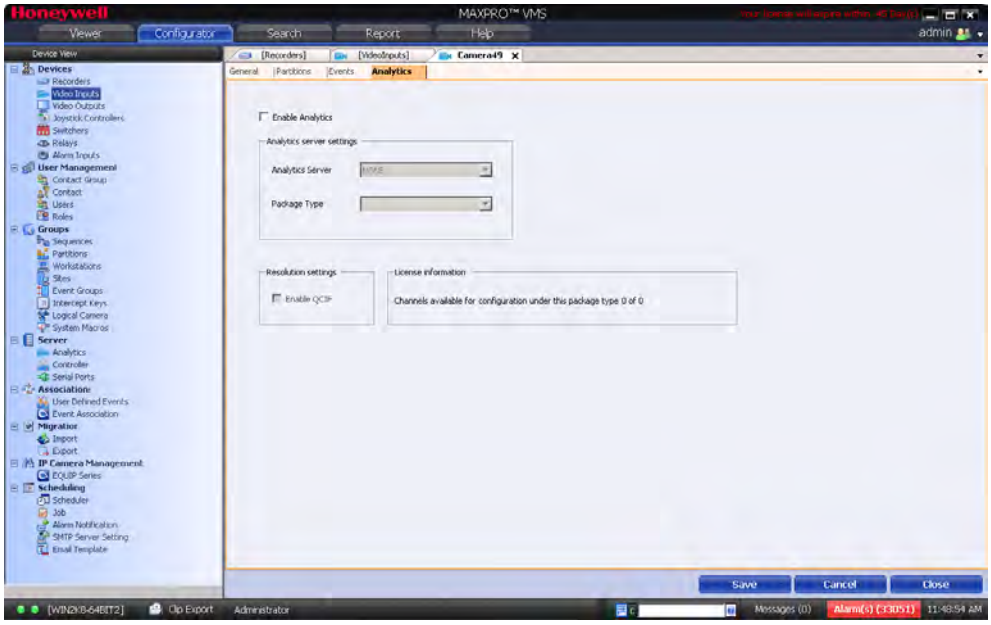


Figure 4-21 Camera Analytics

2. Select **Enable Analytics**.
3. From the **Analytics Server** drop-down list, select the required analytics server.
4. From the **Package Type** drop-down list, select the required package data.
5. In the resolution settings, select **Enable QCIF** to set the QCIF resolution if required.
6. Click **Save**.

FILTERING AND GROUPING THE VIDEOINPUT(S)

Filter feature enables you to filter and group the required number of video input columns. Filtering video inputs can be performed in two ways.

a. By dragging and dropping specific column headers to group with the other columns.
b. By defining the row values to display the required columns.

To filter and group the video input(s) columns

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **VideoInput(s)** node. The **VideoInput(s)** screen appears in the display area.

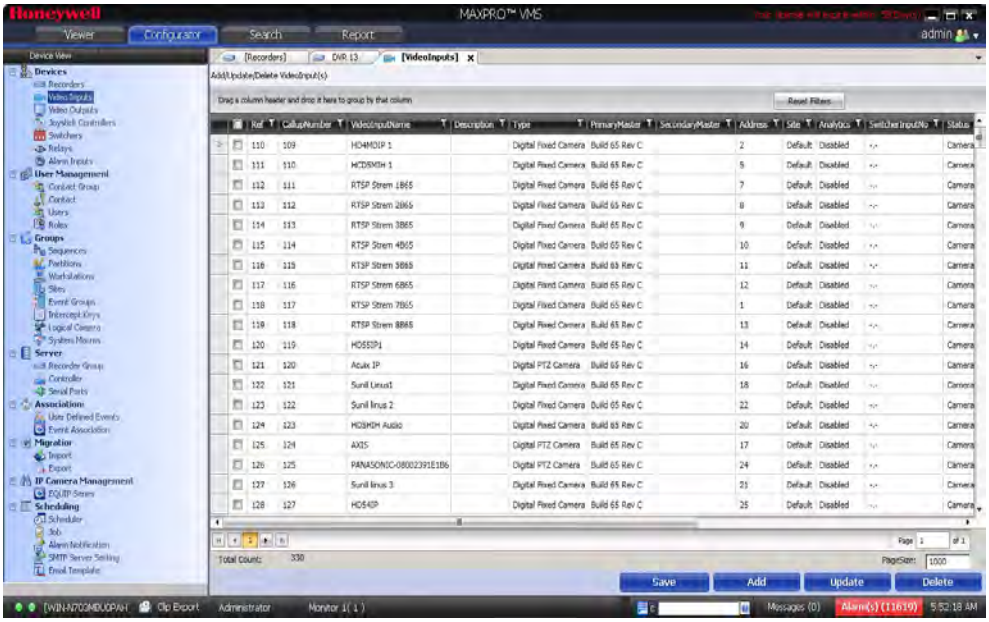


Figure 4-22 Video Inputs Filtering

4. Drag and drop the required columns in upper header area to view the corresponding column details.
   Or
   Right-click on the required column name and then choose **Group by** or **Ungroup by** option.
   Example 1: If you want to view the details of only **VideoInputName**, **Type** and **Address** at once, drag and drop the columns one after another to the upper header area as shown below.

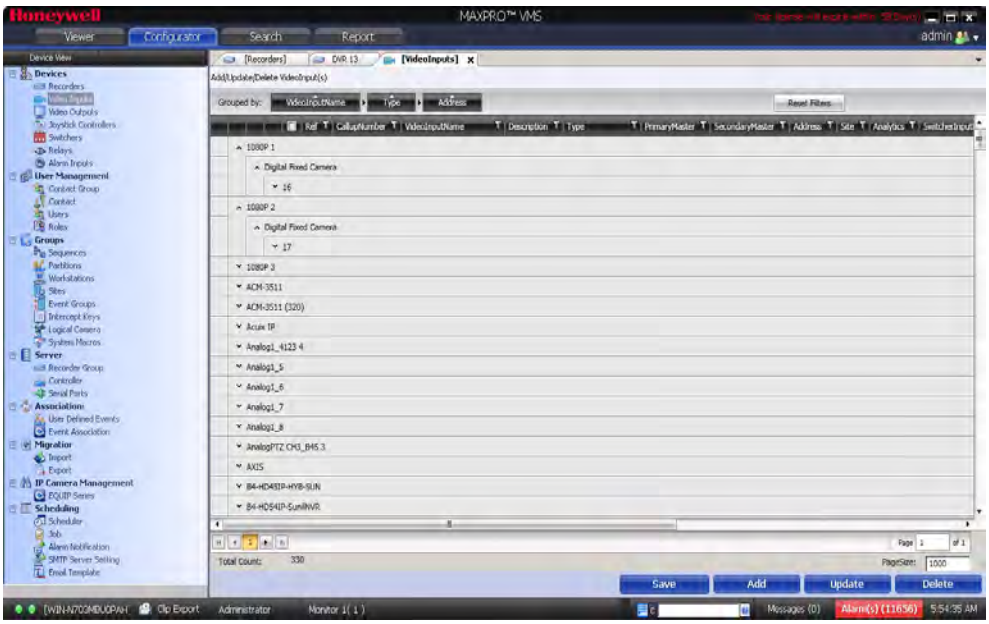
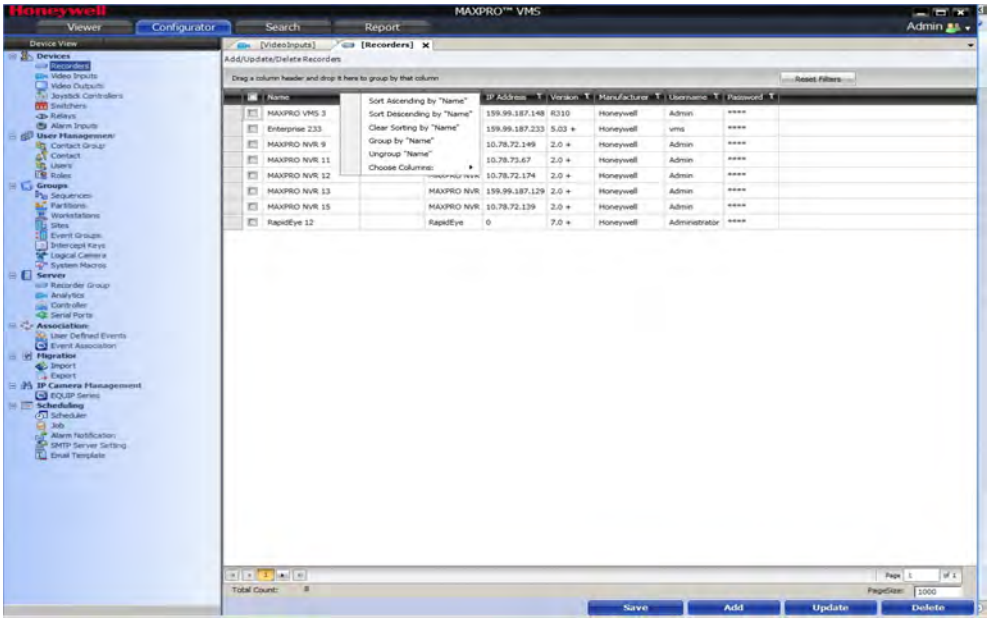
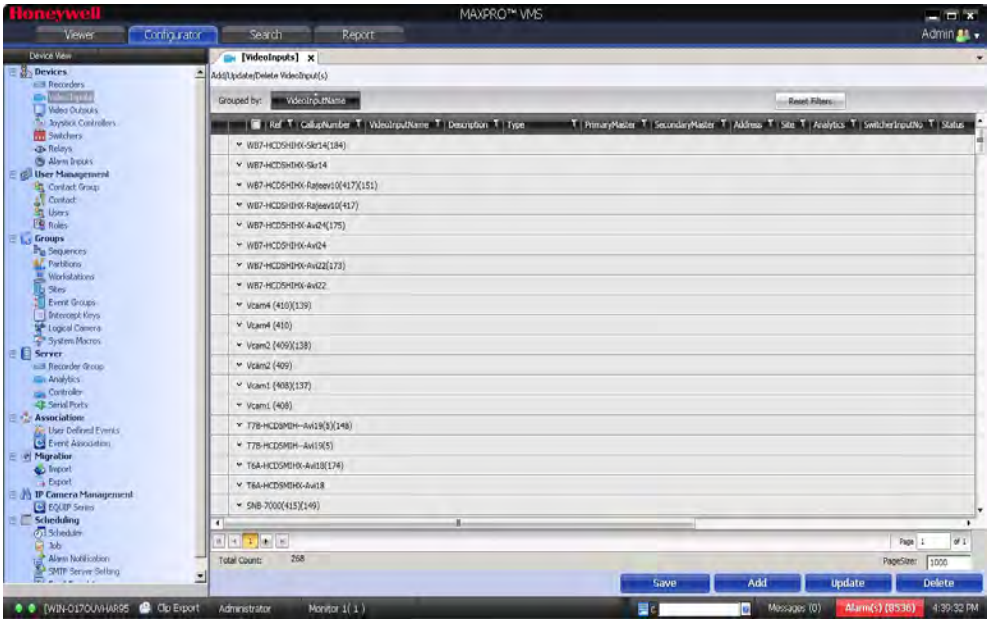


Figure 4-23 Video Inputs Grouping

Example 2: If you want to group the columns by **VideoInputName** then right- click on the **Name** column and then choose **Group by "VideoInputName"** option as shown below.



The column arrangement is displayed a shown below.



5. Click ⌄ under each node to expand and view the details. Similarly repeat the step 4 to add more column headers.

To remove the column headers from the Grouped By area

- Drag the required columns from the **Grouped By** area and drop into the actual header area.

To filter the video inputs(s) columns by defining the value

1. Click the **Configurator** tab.

2. Expand **Devices** in the navigation area.
3. Click the **Video Inputs(s)**node. The **Video Inputs(s)** screen appears in the display area.

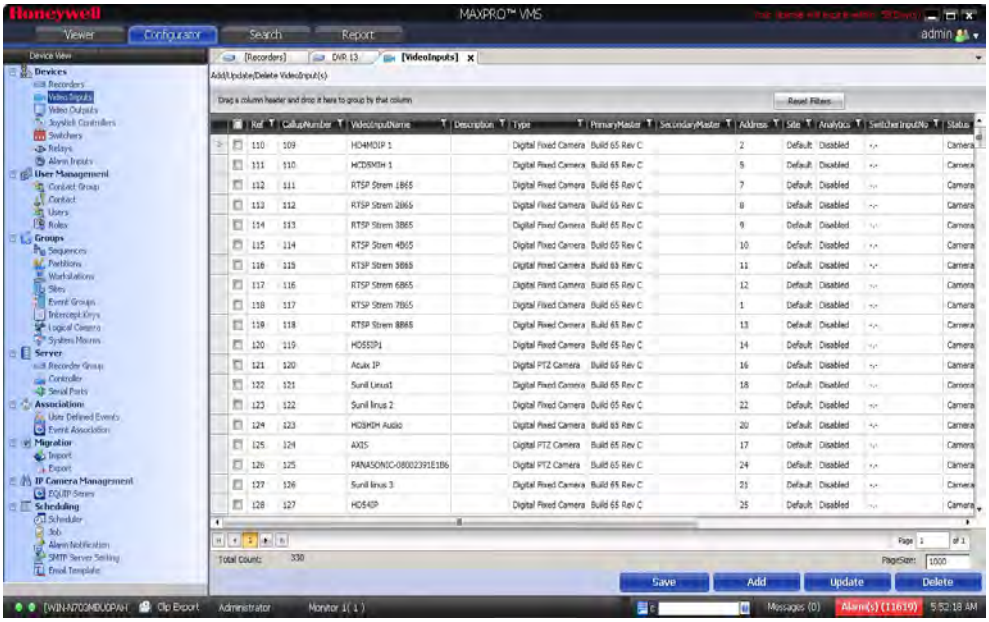
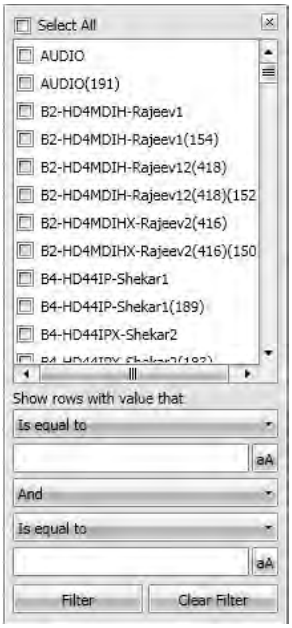
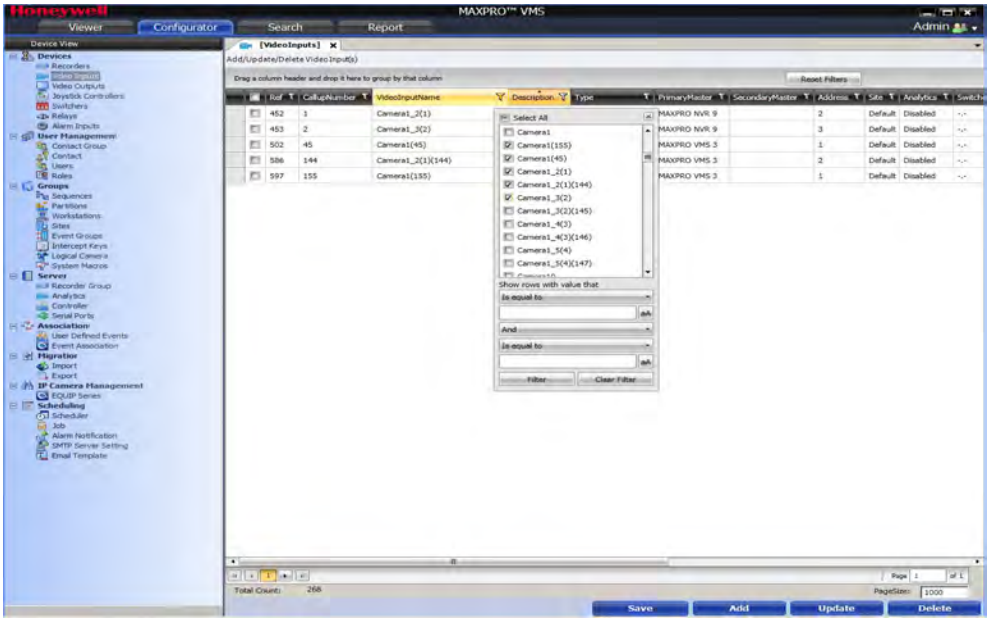


Figure 4-24 Video Inputs(s) Screen

4. Click . Filter dialog box is displayed as shown below.



5. Under **Select All**, select the required check boxes to display the row elements as shown below.



OR

In the **Show rows with value that**, perform the following:

a. Select the required option from the **Is equal to** drop-down list.

b. Type the required value corresponding to your selection.

c. Select the required option from the AND/Or drop- down list.

d. Select the required option from the **Is equal to** drop-down list corresponding to your option selected.

e. Type the required value corresponding to your selections.

f. Click **Filter**. The video inputs(s) columns based on your requirement is displayed. For example If you define a row value as:
Value **Start** with **B4 And** that **Contains H4D55IP** model camera then the result of the filter is displayed as shown below.

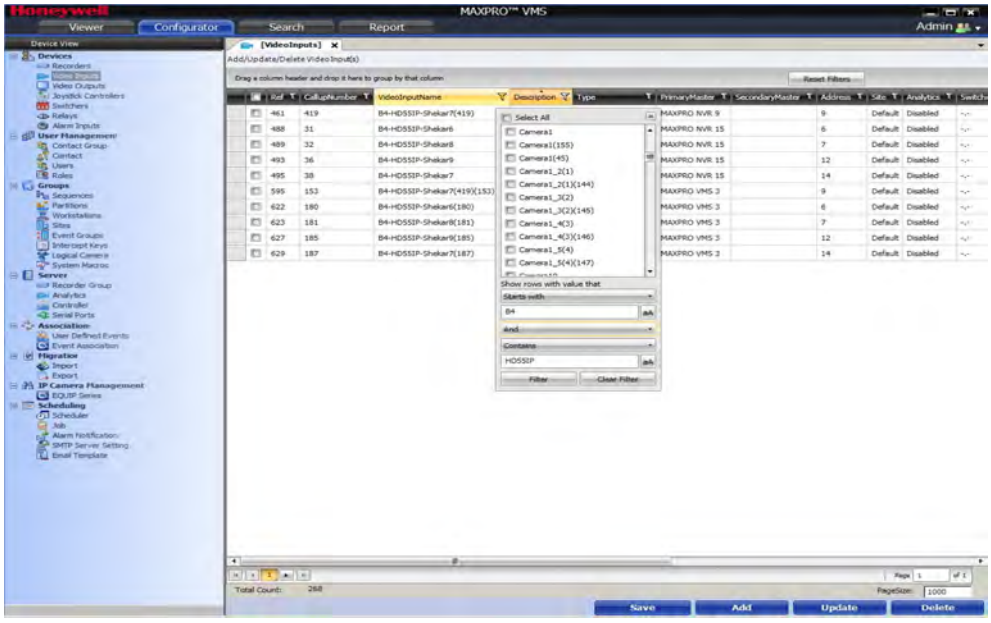


Figure 4-25 Defining Filter

To Clear or Reset the filter

- Click **Clear Filter** in the dialog box
  Or
  Click **Reset Filter** to reset all the filters.

SORTING VIDEO INPUT(S)

Sorting feature enables you to sort the required columns ascending or descending. It also allows you to group or ungroup based on the specific column.

To sort the columns ascending or descending

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area.
3. Click the **Video Input(s)** branch. The **Video Input(s)** screen appears in the display area.

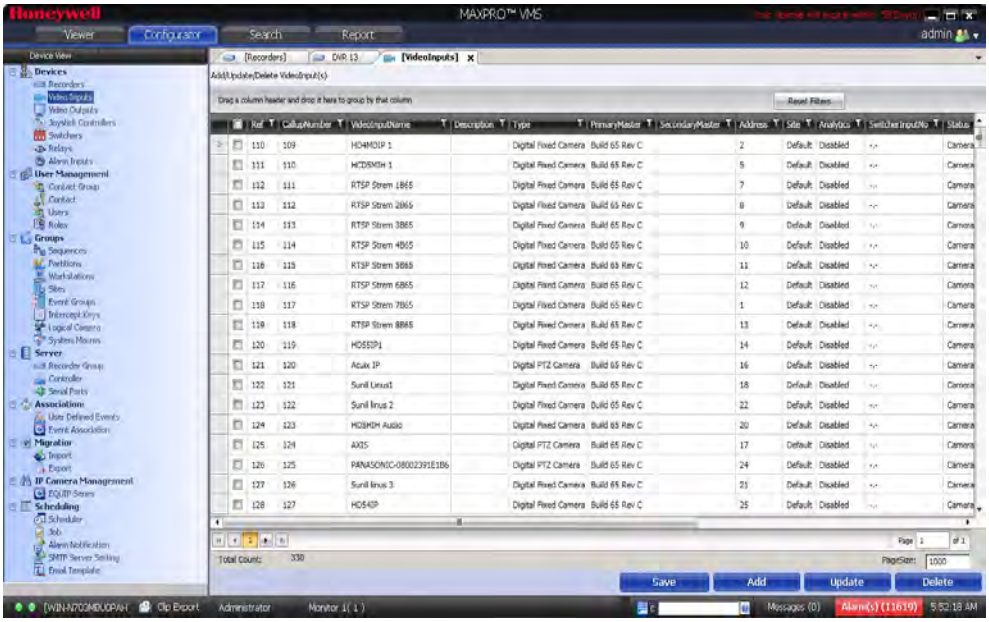
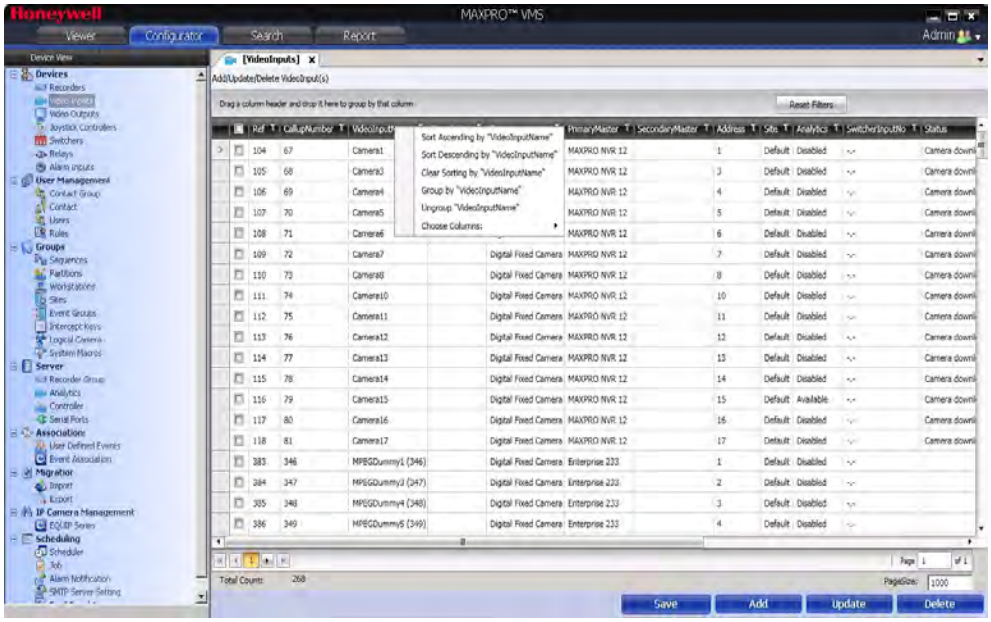


Figure 4-26 Video Input(s) Screen

4. Right click on the required column name. Sorting options are displayed as shown below.



5. Choose the required Ascending or Descending option. The columns information is arranged accordingly as shown in *figure 23*.

CHOOSE THE COLUMNS TO DISPLAY

You can choose the attributes of video input(s) to display in the screen.

To choose the columns to display

1. Right click on any column header and then point to **Choose Columns**. The available column names are displayed.
2. Select or clear the required column. Based on the selection the column table are displayed.

UPDATING A VIDEO INPUT

You can update the camera to change the existing settings and configure new settings.

To update a video input

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Video Inputs**. The **Video Inputs** screen appears in the display area.
3. Double-click the video input or select the check box corresponding to the video input, and then click Update.
4. The **Video Input** screen appears. Update the required settings.
5. Click **Save.**

DELETING A VIDEO INPUT

You can delete a video input when you do not want to record video from a site or do not want the display of a live video from a site. All the associations made to the video input are removed, when you delete it.

Before you begin

- Disassociate Partitions. See *Associating Partitions to Video Inputs* for more information.
- Disassociate Events. See *Associating Events* for more information.

To delete a video input

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Video Inputs**. The **Video Inputs** screen appears in the display area.
3. Select the check box corresponding to the video input that you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

ADDING A VIDEO INPUT DEVICE

1. In the **Video Input Details** area, specify the following video input device details.
2. Repeat the step 2 through step 5 of section *Adding a Camera* on page *119*
3. Click **Save**.

ADDING A VIDEO INPUT DEVICE (DIGITAL INPUT TRUNK)

1. In the **Video Input Details** area, specify the following video input device details.

Field	Description
Video Input Name	Type a video input device name. The video input device name appears in the devices window making it easy to select.
Description	Type a description for the camera.
Callup Number	A unique number that identifies the camera. By default, the next available number is allocated. The operators can use the number to quickly view the video from the video input device using the virtual keyboard. See About Virtual Keyboard in Monitoring a Site section.
Site	Location of the camera.

2. In the **Alternative Settings** area, specify the following details.

Field	Description
Alternate Camera	Type the number of the camera that has to be selected as an alternate camera when ALT key is pressed on the keyboard. The range of valid camera numbers is 1 – 9999. Zero (0) is the default value and indicates no alternate camera is defined.

Field	Description
Alternate Camera View	Type the camera view number or preset number to select the preset view for the alternate camera. Pressing the 'ALT' key not only displays the alternate camera, but also move it automatically, to the designated VIEW preset. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected.

3. In the **Connected To** section, select **Switcher**. See *Associating a Switcher to a Video Input* for more information.
4. From the **Switcher** drop-down list, select the required switcher. Specify the following details in the switcher settings.

Settings	Description
Primary Subrack ID	The ID that is associated while adding a switcher is displayed by default.
Input Number	Type the video input number on the subrack.

5. From the **Digital Monitor -TV out**, select the required monitor.
6. In the **Connected To** section, select the **Recorder**. See *Associating Recorder to a Video Input Device* for more information.

Note: Only Enterprise recorder can be associated.

7. Select **Link** if you wan to broadcast the status changes and actions performed on the current video input device on the network.
8. Click **Save**.

VIDEO OUTPUTS

You can add various video output devices in MAXPRO VMS. You can add digital and analog monitors. The following types of video output devices are supported.

- Monitor — Analog and Digital.
- Standard Device — other devices, freeze frames and so on.
- Smart Device— devices such as multiplexers.
- Trunk - trunk video input (from a networked system).
- VCR — (video cassette recorder) - dedicated or Dub VCR.
- Standby VCR — Standby VCR as used in VCR Management.
- Digital Output Trunk — to view analog camera video.

Analog monitors are connected to the switchers and display video from analog cameras. The digital monitors are connected to the client workstations. Each client workstation can connect up to four digital monitors.

VIDEO OUTPUTS AND PARTITIONS

A partition is a logical grouping of video devices. Partitions are associated to monitors. Monitors associated to a partition can be viewed or managed only by the users who are associated with it.

VIDEO OUTPUTS AND EVENT GROUPS

An event group is a set of events that occur on video devices. Event Groups are associated to monitors. An alarm is generated, When any event related to the monitor in the event group occurs.

VIDEO OUTPUTS AND JOYSTICK CONTROLLER

Joystick controllers are associated to Monitors. Monitors associated to a joystick controller can be controlled by a user who is also associated with the joystick controller.

ADDING VIDEO OUTPUTS

You can add digital and analog video outputs like monitors, smart devices, standard device, trunk, VCR, Standby VCR to display video. Video output devices like digital monitors are connected to the client workstations. The video output devices analog monitors are connected to the video matrix switchers.

Before you begin

- Add Site.
- Add Switcher (to associate the analog monitor).
- Add Workstation (to associate the digital monitor).
- Add Partition.
- Update Joystick Controller.

By default, a site and partition are available. You can associate the video outputs to them or create new.

To add a video output

1. Click the **Configurator** tab.

2. Expand **Devices** in the navigation area, and then click **Video Outputs**. The **Video Output** screen appears in the display area.

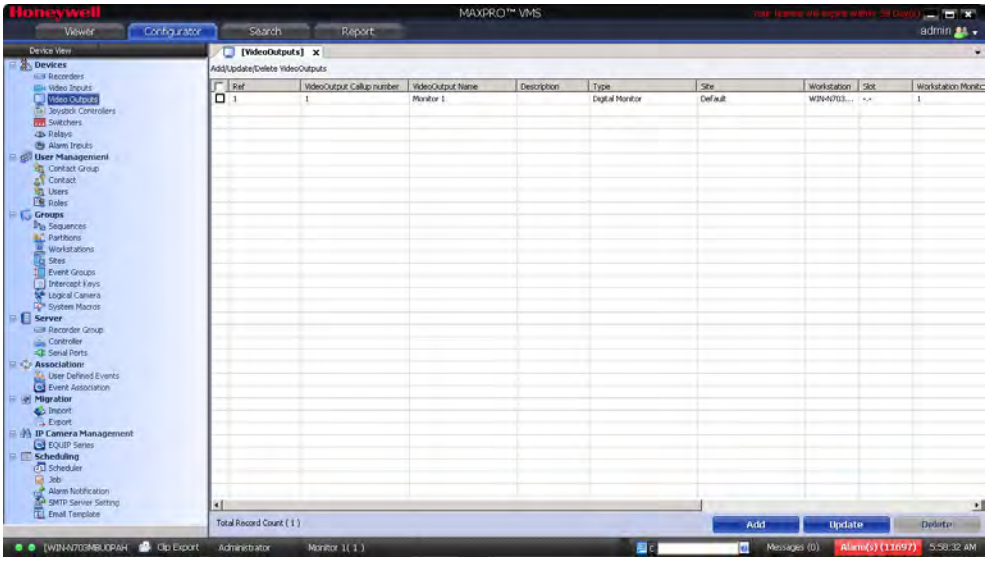


Figure 4-27 Video Outputs

3. Click **Add**. The **Monitor** screen appears by default.

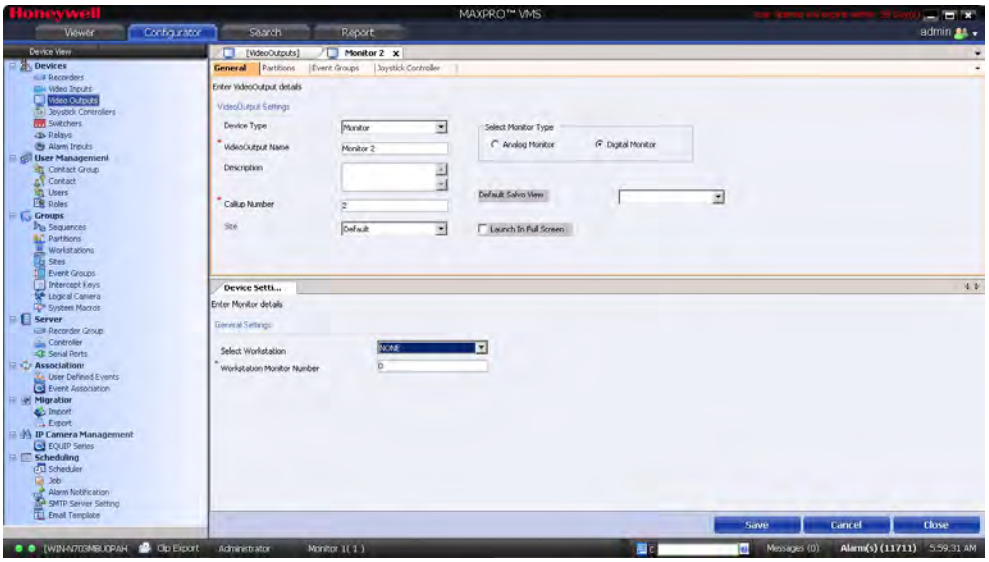


Figure 4-28 Monitors

4. From the **Device Type** drop-down list, select the required device type. The currently supported video output device types are listed in the following table. Click the corresponding links in the device column list to refer to the instructions while adding.

Video Input Device	Description
Monitor	For details on configuring the monitor, see *Adding Monitors*.

Video Input Device	Description
Standard Device	For details on configuring the devices, see *Adding a Video Output Device (Standard Device/Smart Device/VCR/ Standby VCR)*.
Smart Device	
VCR	
Standby VCR	
Trunk	For details on configuring the trunk, see *Adding a Video Output Device (Trunk)*.
Digital OutputTrunk	For details on configuring the digital output trunk, see *Adding a Video Output Device (Digital Output Trunk)*.

5. Associate Partition. See *Associating Partitions to Video Outputs* for more information.
6. Associate Joystick Controllers. See *Associating Video Outputs to Joystick Controllers*.
7. Associate Event Groups. See *Associating Video Outputs to Event Groups* for more information.
8. Click **Save**.

ADDING MONITORS

DIGITAL MONITOR

To add a digital monitor

1. Select the **Digital Monitor** under **Select Monitor Type**.
2. In the **VideoOutput Name** box, type the name for the monitor.
3. In the **Description** box, type a description for the monitor.
4. In the **Callup Number** box, an automatic number is allocated by default. The operator uses this number to select a monitor from the keyboard.
5. In the **Site** box, select the location in which the monitor is used.
6. In the **Default Salvo View** drop-down list, select the default salvo view for the monitor.

Note: This feature helps in configuring the wall mounted digital monitors in a site to display live video from the selected salvo views.

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7. Select the **Launch in Full Screen** check box to launch the selected default salvo view in full screen mode, whenever the monitor is turned on.
8. In the **Select Workstation** drop-down list in **Device Settings** area, select the workstation to which the monitor is connected.
9. In the **Workstation Monitor Number** box, type the number configured for the monitor during workstation setup.
10. Click **Save**.

ANALOG MONITOR

To add a analog monitor

1. Select the **Analog Monitor** under **Select Monitor Type**.
2. In the **VideoOutput Name** box, type the name for the monitor.
3. In the **Description** box, type a description for the monitor.
4. In the **Callup Number** box, an automatic number is allocated by default. The operator uses this number to select a monitor from the keyboard.
5. In the **Site** box, select the location in which the monitor is used.
6. Select the **Lock VideoOutput** check box to lock monitor from displaying video.

Note: A monitor can be locked or unlocked by selecting or clearing the **Lock VideoOutput** check box. When a monitor is locked, no operations on the monitor are allowed including the multi monitor function.

7. In the **Default Video Source** box, type the camera callup number of the camera from which the live video is to be displayed.
8. In the **Default Scan Sequence** box, type the scan sequence number.
9. Select the **Run Default Scan Sequence** check box to automatically begin the default scan sequence.
10. In the **Slot** box, type the slot number to identify the slot location of the video output channel.
11. Click **Switcher**, if the monitor is connected to a switcher, and then select the required switcher in the **Switcher** drop-down list. Specify the following details.

Settings	Description
Text Inserter SubrackID	Address of the subrack that contains the text insertion card is displayed by default. The valid range of subrack addresses is 1 – 799; a value of 0 indicates the text is not used.
Text Inserter Slot	Type the slot number within the subrack where the text insertion card resides. **Note:** The valid range of slot numbers is 1 – 32. HD Series hardware supports the MX208 8 channel video output/text insertion card, the text inserter slot entries correspond with the physical video output channel of the subrack. For VideoBloxsubrack, this number represents the physical input location of the video output channel. Valid range: 1 to 255 for VideoBlox.

12. Click the **Net Device** option, and then type the exact location and reference for the video
13. Select the **LINK** check box, if you want to broadcast the status changes and actions performed on the current video output device on the network.
14. In the **Video Timeout** box, type the display time-out period. The display time-out period can be set from 1-999 seconds. Enter a value zero if this function is not required.

15. In the **Text Line Settings** area, select the check boxes according to your requirement to select text line settings. The following table lists the options.

Option	Description
Message Line	Defines the line where the Message Line text (Example, Warning message) is displayed.
Mode Line	Defines the line where the Mode text (Example, Scan mode) is displayed.
Source Description	Defines the line the Video Input device description is displayed.
Channel Description	Defines the line where the description for the video device is displayed.
Real Time Clock	Defines the line the Real Time Clock is displayed.

Note: Selecting the **Select All** check box selects all the **Text Line Settings**.

16. In the **Text Display Settings** area, select the check boxes to select the text display settings. The following table lists the options.

Option	Description
Enhanced Card	To enhance the appearance of the text display.
Hidden Text	To hide the text display on the monitor.
Shadow	To apply shadow affect for the text display.
BackGround	To apply background affect for the text display.
Reverse Black/White	To reverse black/white affect for the text display.
Double Height	To increase the height of text display on monitor.
Flash	To display blinking text on the monitor.

Note: Selecting the **Select All** check box enables all the Text Display Settings.

17. In the **X** and **Y** boxes, type a location for the text to appear on the monitor. Valid positions are 1 –13. X and Y coordinates represent the horizontal and vertical position respectively.
18. In the **Device Macro Flags** section, select the required fields to set the macro flag to True. This field allows for definition of the default cold boot state of the macro flags for the current video input device. Click **Select All** to set all the macro flags to True.
19. Click **Save**.

ADDING A VIDEO OUTPUT DEVICE (STANDARD DEVICE/SMART DEVICE/VCR/ STANDBY VCR)

1. In the **VideoOutput Name** box, type the name for the monitor.
2. In the **Description** box, type a description for the monitor.
3. In the **Callup Number** box, an automatic number is allocated by default. The operator uses this number to select a monitor from the keyboard.
4. In the **Site** box, select the location in which the monitor is used.
5. Select the **Lock VideoOutput** check box to lock monitor from displaying video.
6. In the **Switcher Settings**, type the **Slot** number to identify the slot location of the video output channel
7. In the **Text Inserter Subrack Settings** area, click **Switcher**, if the monitor is connected to a switcher, and then select the required switcher in the **Switcher** drop-down list. Specify the following details.

Settings	Description
Text Inserter SubrackID	Address of the subrack that contains the text insertion card is displayed by default. The valid range of subrack addresses is 1 – 799; a value of 0 indicates the text is not used.
Text Inserter Slot box	Type the slot number within the subrack where the text insertion card resides. **Note:** The valid range of slot numbers is 1 – 32. HD Series hardware supports the MX208 8 channel video output/text insertion card, the text inserter slot entries correspond with the physical video output channel of the subrack. For VideoBloxsubrack, this number represents the physical input location of the video output channel. Valid range: 1 to 255 for VideoBlox.

8. In the **Network Settings** area:
   - Select the **Net Device** option, and then type the exact location and reference for the video.
   - Select the **LINK** check box, if you want to broadcast the status changes and actions performed on the current video output device on the network.
9. In the **Video Timeout** box, type the display time-out period. The display time-out period can be set from 1-999 seconds. Enter a value zero if this function is not required.
10. In the **Text Line Settings** area, select the check boxes according to your requirement to select text line settings. The following table lists the options.

Option	Description
Message Line	Defines the line where the Message Line text (Example, Warning message) is displayed.
Mode Line	Defines the line where the Mode text (Example, Scan mode) is displayed.
Source Description	Defines the line the Video Input device description is displayed.
Channel Description	Defines the line where the description for the video device is displayed.

Option	Description
Real Time Clock	Defines the line the Real Time Clock is displayed.

Note: Selecting the **Select All** check box selects all the **Text Line Settings**.

11. In the **Text Display Settings** area, select the check boxes to select the text display settings. The following table lists the options.

Option	Description
Enhanced Card	To enhance the appearance of the text display.
Hidden Text	To hide the text display on the monitor.
Shadow	To apply shadow affect for the text display.
BackGround	To apply background affect for the text display.
Reverse Black/White	To reverse black/white affect for the text display.
Double Height	To increase the height of text display on monitor.
Flash	To display blinking text on the monitor.

Note: Selecting the **Select All** check box enables all the Text Display Settings.

12. In the **X** and **Y** boxes, type a location for the text to appear on the monitor. Valid positions are 1 –13. X and Y coordinates represent the horizontal and vertical position respectively.
13. In the **Device Macro Flags** area, select the required **Flag** check boxes to set the macro flag to True. This field allows for definition of the default cold boot state of the macro flags for the current video input device. Click **Select All** to set all the macro flags to True.
14. Click **Save**.

Adding a Video Output Device (Trunk)

1. In the **VideoOutput Name** box, type the name for the monitor.
2. In the **Description** box, type a description for the monitor.
3. In the **Callup Number** box, an automatic number is allocated by default. The operator uses this number to select a monitor from the keyboard.
4. In the **Site** box, select the location in which the monitor is used.
5. Select the **Lock VideoOutput** check box to lock monitor from displaying video.
6. In the **Slot** box, type the slot number to identify the slot location of the video output channel.
7. In the **Video Timeout** box, type the display time-out period. The display time-out period can be set from 1-999 seconds. Enter a value zero if this function is not required.

8. In the **Text Line Settings** area, select the check boxes according to your requirement to select text line settings. The following table lists the options.

Option	Description
Message Line	Defines the line where the Message Line text (Example, Warning message) is displayed.
Mode Line	Defines the line where the Mode text (Example, Scan mode) is displayed.
Source Description	Defines the line the Video Input device description is displayed.
Channel Description	Defines the line where the description for the video device is displayed.
Real Time Clock	Defines the line the Real Time Clock is displayed.

Note: Selecting the **Select All** check box selects all the **Text Line Settings**.

9. In the **Text Display Settings** area, select the check boxes to select the text display settings. The following table lists the options.

Option	Description
Enhanced Card	To enhance the appearance of the text display.
Hidden Text	To hide the text display on the monitor.
Shadow	To apply shadow affect for the text display.
BackGround	To apply background affect for the text display.
Reverse Black/White	To reverse black/white affect for the text display.
Double Height	To increase the height of text display on monitor.
Flash	To display blinking text on the monitor.

Note: Selecting the **Select All** check box enables all the Text Display Settings.

ADDING A VIDEO OUTPUT DEVICE (DIGITAL OUTPUT TRUNK)

1. In the **VideoOutput Name** box, type the name for the monitor.
2. In the **Description** box, type a description for the monitor.
3. In the **Callup Number** box, an automatic number is allocated by default. The operator uses this number to select a monitor from the keyboard.
4. In the **Site** box, select the location in which the monitor is used.

5. Select the **Lock VideoOutput** check box to lock monitor from displaying video.
6. In the **Slot** box, type the slot number to identify the slot location of the video output channel.
7. In the **Video Timeout** box, type the display time-out period. The display time-out period can be set from 1-999 seconds. Enter a value zero if this function is not required.
8. In the **Text Line Settings** area, select the check boxes according to your requirement to select text line settings. The following table lists the options.

Option	Description
Message Line	Defines the line where the Message Line text (Example, Warning message) is displayed.
Mode Line	Defines the line where the Mode text (Example, Scan mode) is displayed.
Source Description	Defines the line the Video Input device description is displayed.
Channel Description	Defines the line where the description for the video device is displayed.
Real Time Clock	Defines the line the Real Time Clock is displayed.

Note: Selecting the **Select All** check box selects all the **Text Line Settings**.

9. In the **Text Display Settings** area, select the check boxes to select the text display settings. The following table lists the options.

Option	Description
Enhanced Card	To enhance the appearance of the text display.
Hidden Text	To hide the text display on the monitor.
Shadow	To apply shadow affect for the text display.
BackGround	To apply background affect for the text display.
Reverse Black/White	To reverse black/white affect for the text display.
Double Height	To increase the height of text display on monitor.
Flash	To display blinking text on the monitor.

Note: Selecting the **Select All** check box enables all the Text Display Settings.

10. In the **X** and **Y** boxes, type a location for the text to appear on the monitor. Valid positions are 1 –13. X and Y coordinates represent the horizontal and vertical position respectively.

11. In the **Device Macro Flags** section, select the required fields to set the macro flag to True. This field allows for definition of the default cold boot state of the macro flags for the current video input device. Click **Select All** to set all the macro flags to True.
12. Specify the Video Source in the **Digital Settings** tab.

Option	Description
Video Source	From the drop-down list, select the required video input device to display video.

Deleting a Video Output Device

To delete a video output device

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Video Outputs**. The **Video Outputs** screen appears in the display area.
3. Select the check box corresponding to the video output device that you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

Updating a Video Output Device

You can update a video output device to change its association with a partition, joystick controller, and also to modify its settings.

To update a video output

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Video Outputs**. The **Video Outputs** screen appears in the display area.
3. Select the check box corresponding to the video output you want to update.
4. Click **Update**. The settings for the video output appear. You can modify the settings.
5. Click **Save**.

Locking the Display on the Monitor

The analog monitor can be locked to display the video only from a particular camera and field of view. The operator cannot perform pan, tilt, or zoom using a monitor with locked display.

To lock the display on a monitor

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Video Outputs**. The **Video Outputs** screen appears in the display area.
3. Select the check box corresponding to the monitor you want to lock.
4. Double-click or click **Update**. The **General Settings** for the monitor appears.
5. Select the **Lock VideoOuput** check box.
6. Click **Save**.

Associating Partitions to Video Outputs

You can add partitions to video outputs. A video output associated with a partition can be viewed and managed by a user who is in turn associated with the partition.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partitions to video outputs

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.
2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.
4. Click **OK**. The selected partition is displayed in the list of associated partitions.

To disassociate partition from the video outputs

- Select the check box corresponding to the partition name, and then click **Remove**.

Associating Video Outputs to Event Groups

You can associate event groups to video outputs. Associating video outputs to event groups allows display of alarms that are associated with the event group.

Before you begin

- Add Event Group.

To associate event groups to video outputs

1. Click the Event Groups tab. The screen displays the associated event groups, if any.
2. Click **Associate**. The **Select Event Groups** dialog box appears.
3. Select the check box corresponding to the Event Group name you want to associate.
4. Click **OK**.

To disassociate event groups from video outputs

- Select the check box corresponding to the Event Group name, and then click **Remove**.

Associating Video Outputs to Joystick Controllers

You can associate Joystick Controllers to monitors. Monitors associated to a joystick controller can be controlled by a user who is also associated with the joystick controller.

Before you begin

- Update Joystick Controller.

To associate joystick controllers to video output

1. Click the **Joystick Controller** tab. The screen displays the associated joysticks if any.
2. Click **Associate**. The **Select Joystick Controller** dialog box appears.
3. Select the check box corresponding to the joystick name you want to associate.
4. Click **OK**.

Note: By default, all the joystick controllers are associated when a user is added. You can remove the joystick that you do not require.

To disassociate Joystick Controller from a video output

- Select the check box corresponding to the joystick name, and then click **Remove**.

JOYSTICK CONTROLLERS

An Ultrakey keyboard is referred to as the joystick controller. Using the Ultra key keyboard, you can perform actions such as selecting a panel, PTZ operations, selecting a video source such as a camera, and others in the Viewer tab. You can program the keys in the Ultrakey keyboard to perform a particular action by associating intercept commands to them. For example, a key can be programmed to select a panel in the salvo layout.

By default, 99 keyboards and a server keyboard is added. Only joystick controller 1 is enabled by default. The server keyboard cannot be deleted.

JOYSTICK CONTROLLERS AND USERS

Users are responsible for carrying out video surveillance operations in MAXPRO VMS. Joystick controllers are associated to users. Users associated to joystick controllers can carry out video surveillance tasks in the client workstations.

JOYSTICK CONTROLLERS AND INTERCEPT KEYS

Joystick controllers (Ultrakey keyboards) are associated to intercept keys. You can program the keys in the Ultrakey keyboard to perform an action by associating intercept keys to them. For example, a key can be programmed to select a panel in the salvo layout.

JOYSTICK CONTROLLERS AND VIDEO OUTPUTS

Joystick controllers are associated to video outputs in MAXPRO VMS

CONFIGURING JOYSTICK CONTROLLER

To enable the joystick controller on the MAXPRO VMS, you need to configure the joystick controller.

To configure the joystick controller

1. Press **ALT + Home** in Joystick Controller. The **STARTUP** Menu of the configuration page appears.
2. On the **STARTUP MENU** screen, press **Configure**. The **Numeric Entry** screen appears.
3. In the **Enter Your Password** box, type the password, and then press **Enter**. The **Configuration** screen appears.
4. Press **HardwareConfig**.The **HARDWARE CONFIG** screen appears.
5. Press **Port Settings**. The **PORT SETUP** screen appears.
6. Press **Ethernet**. The **ETHERNET SETUP** screen appears.
7. Press **IP Address**, and then type the IP Address of the Joystick Controller.
8. Press **Subnet Mask**, and then type the Subnet Mask of the network.
9. Press **Default Gateway**, select the required Gateway.
10. Press **Sys.Cntl. IP Address**, and then type the IP address of the MAXPRO™ VMS Server.
11. Press **Save**.
12. Press **Quit** to return to the **STARTUP** Menu screen.
13. In the **STARTUP** Menu, press **Run**.

CONNECTING THE KEYBOARD TO MAXPRO VMS

To connect a keyboard to MAXPRO VMS

1. Go to **C:\Program Files\Honeywell\TrinityFramework\bin**, the default path where MAXPRO VMS is installed.
2. Double-click **MAXPRO_Keyboard_Prototype.exe.** The **Simulator** dialog box appears.
3. In the **Keyboard Number** box, type the input number for the keyboard.
4. In the **IP Address** box, type the IP address of the MAXPRO™ VMS Server.
5. Click **Power-On**.

SIGN ON AND SIGN OFF

Before you sign on and sign off from a joystick controller, you must configure the features.

CONFIGURING THE SIGN ON AND SIGN OFF FEATURE

To configure the sign on and sign off feature

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Joystick Controllers**. The **Joystick Controllers** screen appears in the display area.

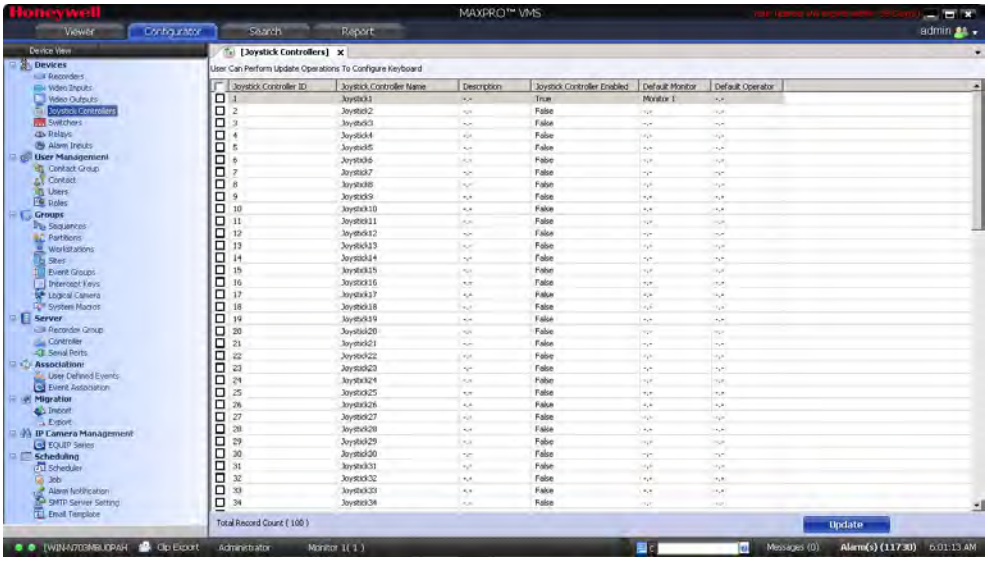

Figure 4-29 Joystick Controller

3. Double-click the joystick controller for which you want to use the sign on and sign off feature. The joystick screen appears.
4. In the **Default Operator** drop-down list, select **None**.
5. Click **Save**.
6. Restart the trinity services.
7. Create an ultrakey button for menu whose inctercept key value is 41. For more information on creating a ultrakey button, refer to the ultrakey user manual.

Note: By default, the intercept key 41 is defined in MAXPRO VMS and the replacement macro is “?”.

To sign on to the joystick controller

1. Press the **Menu** button on the joystick controller.
2. Select the operator number, and then press **Enter**. You are prompted to enter the four digit pin.
3. Type the four digit pin, and then press **Enter**.

Note: You can see the names directly on the display.

To sign off from the joystick controller

1. Press the **Menu** button on the joystick controller.
2. Press the **PTZ tilt down** button, and then press **Enter**. A message asking for confirmation appears.
3. Press **Enter**.

UPDATING A JOYSTICK CONTROLLER

You can update a joystick controller to modify the keyboard settings.

To update a joystick controller

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Joystick Controllers**. The **Joystick Controllers** screen appears in the display area.
3. Select the check box corresponding to the joystick controller you want to update, and then click **Update**. The **Enter Keyboard** details screen appears.

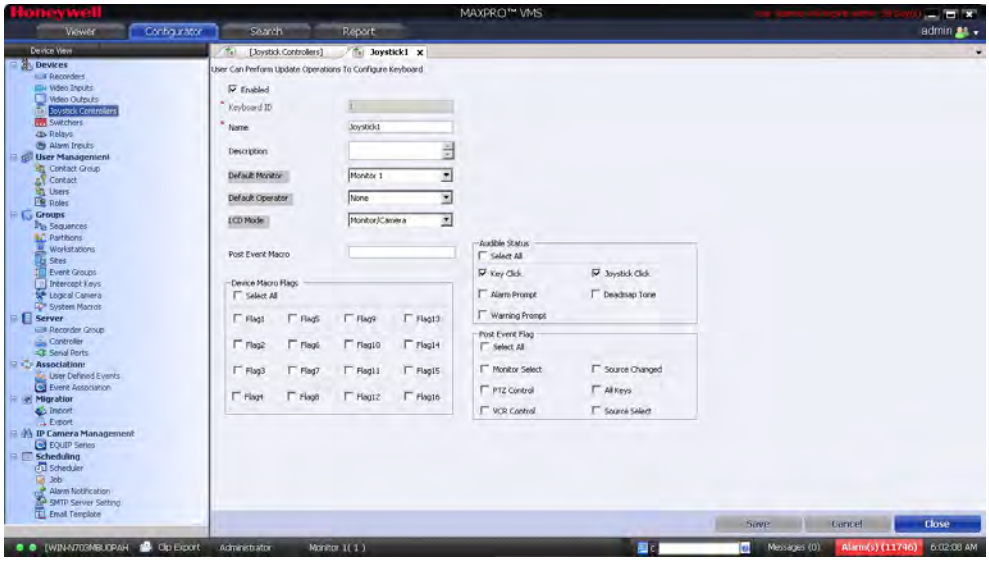

Figure 4-30 Updating a Joystick Controller

4. In the **Enter Keyboard Details** area, select the **Enabled** check box. The **Keyboard ID** is displayed automatically.
5. In the **Name** box, type the name for the keyboard.
6. In the **Default Monitor** drop-down list, select the default monitor to be associated with the joystick controller.
7. In the **Default Operator** drop-down list, select the default user to be associated with the joystick controller.

8. In the **LCD Mode** drop-down list, select the LCD display mode.
9. In the **Audible Status** area, select the check boxes to configure audible keyboard prompts. The following table lists the audible status options.

Option	Description
Key Click	The keyboard beeps in response to every key press.
Joystick Click	The keyboard beeps in response to any joystickmovement.
Warning Prompt	The keyboard buzzes in response to warning messages.
Alarm Prompt	The keyboard beeps continuously in response to an alarm message, until the alarm is cleared.
Deadmap Tone	The keyboard beeps if it is not used for specific amount of time, as defined by keyboard operator section.

Note: Selecting the **Select All** check box enables all the options.

10. In the **Post Event Macro** box, type the Macro number to be executed after an event.
11. In the **Post Event Flag** area, select the check boxes to select the type of events that triggers the post event macro.The following table lists the post event flag options.

Option	Description
Monitor Select	The post event macro is executed every time a monitor is selected.
Source Select	The post event macro is executed every time a video input device is selected.
Source Changed	The post event macro is executed every time a different video input device is selected on the keyboard's current monitor.
PTZ Control	The post event macro is executed every time the keyboard is used for control of a PAN/TILT/ZOOM camera.
VCR Control	The post event macro is executed every time the keyboard is used for control of a VCR.
All Keys	The post event macro is executed for every key press on the keyboard.

Note: Selecting the **Select All** check box enables all the options.

12. In the **Device Macro Flags** area, select the check boxes to set and test from within the macro environment.
13. Click **Save**.

SWITCHERS

Switcher routes multiple analog camera inputs to multiple analog monitor outputs.

SWITCHERS AND PARTITIONS

A partition is a logical grouping of video devices. Partitions are associated to switchers. You can restrict a non-associated user of the partition from viewing or changing the settings of the switcher.

SWITCHERS AND EVENTS

Events are predefined actions. Switchers have predefined events by default. An alarm is triggered whenever an event is generated. For example, when a switcher is disconnected, an event ‘Connection lost’ is generated.

ADDING A SWITCHER

You can add a switcher to route video input (analog camera) to a video output (analog monitor).

Before you begin

- Add Site. See *Adding a Site* for more information.
- Add Partition. See *Adding a Partition* for more information.
- Add Event Groups. See *Adding an Event Group* for more information.
- Add Serial Ports. See *Adding a Serial Port* for more information.

By default, a site, partition and event groups are available. You can associate the switcher to them or create new.

To add a switcher

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Switchers**. The **Switchers** screen appears in the display area.

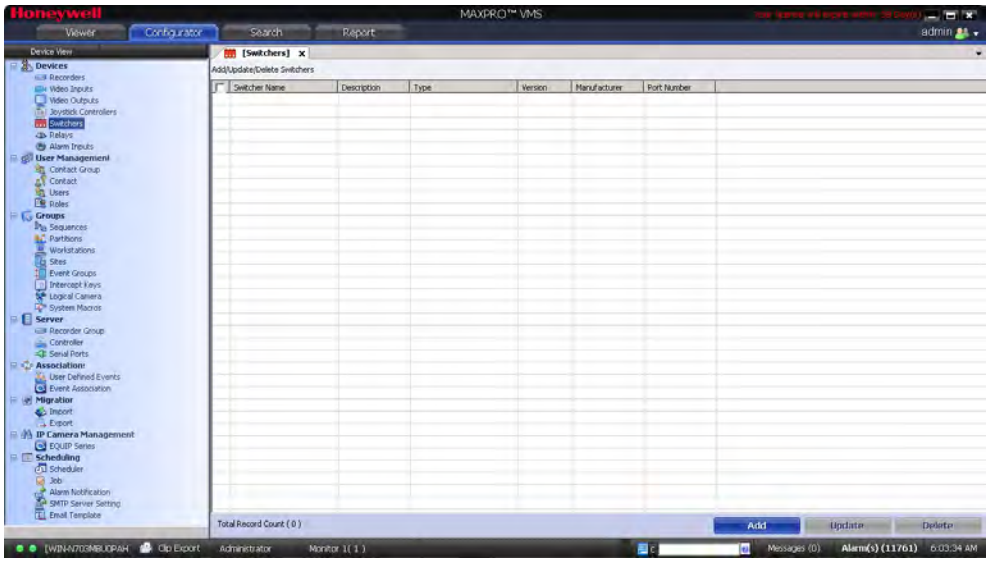

Figure 4-31 Switchers

3. Click **Add**. The **General Settings** appear.

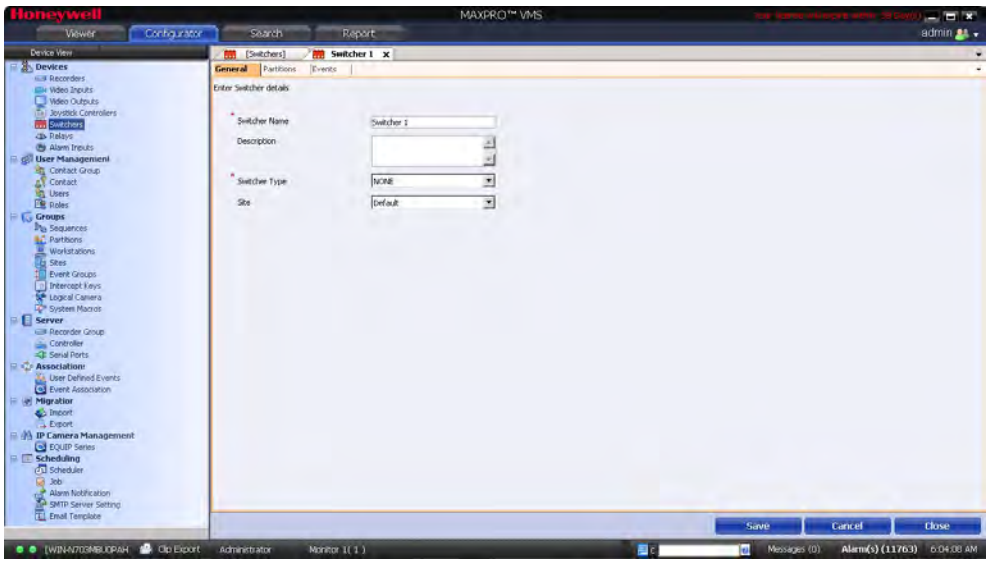

Figure 4-32 Switcher General Settings

4. In the **Switcher Name** box, type the name of the switcher.
5. In the **Description** box, type a description for the switcher.
6. In the **Switcher Type** drop-down list, select the type of switcher. The following are the available type of switchers.
    - Vicon
    - Burle
    - AmericanDynamics
    - PelcoSwitcher
    - VideoBlox
    - MaxPro

Note: Selecting “MaxPro” enables the Primary Subrack ID box.

7. In the **Primary Subrack ID** box, type the address of the subrack.

Note: Valid primary subrack addresses range from 1 – 99. A value of '0' indicates that no video switching occurs when the device is selected. For VideoBlox subrack, this ID represents the ‘V’+communication port number to which the VideoBlox analog video input cards are connected. The valid primary subrack address is ‘V’+maximum communication ports. Suffix ‘A’ with primary subrack ID (for example, V1A) indicates that the audio is enabled for that particular video input.

8. From the **Site** drop-down list, select the location to which you want to connect the switcher.
9. From the **Choose the COM Port** drop-down list, select the required port. See also, Configuring Switchers. See *Configuring Switchers* for more information.

10. Associate Partition. See *Associating Partitions to Switcher* for more information.
11. Associate Events. See *Associating Events to Switcher* for more information.
12. Click **Save**.

CONFIGURING SWITCHERS

This section details the sequential procedure to configure the switchers that are supported by MAXPRO VMS.

Before you begin

- Add a Serial Port.
- Configuring the Switcher

1. Click the **Configurator** tab.
2. Expand **Server** in the navigation area, and then click **Serial Ports**. The **Serial Ports** screen appears in the display area.
3. Click **Add**. A **Joystick** screen appears. Refer to the instructions in the table to configure the port for various switchers.

Switchers	Instructions
Vicon	• In the **COM Port Number**, type the reference number of the serial port. • In the **Port Name** type a name for the port. • In the **Port Type** drop-down list, select the port type as **NONE**. • In the **Baud Rate** drop-down list, select **9600**. • In the **Data Bit** drop-down list, select **EIGHT**. • In the **Stop Bit** drop-down list, select **ONE**. • In the **Parity** drop-down list, select **NONE**.
Burle	• In the **COM Port Number**, type the reference number of the serial port. • In the **Port Name** type a name for the port. • In the **Port Type** drop-down list, select the port type as **NONE**. • In the **Baud Rate** drop-down list, select **9600**. • In the **Data Bit** drop-down list, select **EIGHT**. • In the **Stop Bit** drop-down list, select **ONE**. • In the **Parity** drop-down list, select **NONE**.
Pelco	• In the **COM Port Number**, type the reference number of the serial port. • In the **Port Name** type a name for the port. • In the **Port Type** drop-down list, select the port type as **NONE**. • In the **Baud Rate** drop-down list, select **9600**. • In the **Data Bit** drop-down list, select **EIGHT**. • In the **Stop Bit** drop-down list, select **ONE**. • In the **Parity** drop-down list, select an odd parity

Switchers	Instructions
MaxPro	• In the **COM Port Number**, type the reference number of the serial port. • In the **Port Name** type a name for the port. • In the **Port Type** drop-down list, select the port type as **NONE**. • In the **Baud Rate** drop-down list, select 1**9200**. • In the **Data Bit** drop-down list, select **SEVEN**. • In the **Stop Bit** drop-down list, select **ONE**. • In the **Parity** drop-down list, select an even parity
American Dynamics	• In the **COM Port Number**, type the reference number of the serial port. • In the **Port Name** type a name for the port. • In the **Port Type** drop-down list, select the port type as **NONE**. • In the **Baud Rate** drop-down list, select 1**9200**. • In the **Data Bit** drop-down list, select **SEVEN**. • In the **Stop Bit** drop-down list, select **ONE**. • In the **Parity** drop-down list, select an even parity
VideoBlox	• In the **COM Port Number**, type the reference number of the serial port. • In the **Port Name** type a name for the port. • In the **Port Type** drop-down list, select the port type as **NONE**. • In the **Baud Rate** drop-down list, select **19200**. • In the **Data Bit** drop-down list, select **EIGHT**. • In the **Stop Bit** drop-down list, select **ONE**. • In the **Parity** drop-down list, select **NONE**.

4. Click **Save**.

Note: For more information on adding serial ports, see Adding a Serial Port section.

ADDING A SWITCHER

To add a switcher

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Switchers**. The **Switchers** screen appears in the display area.
3. Click **Add**. A **Switcher** screen appears.
4. In the **Switcher** Type drop-down list, select the required switcher.

Note: For more details on adding a switcher, see *Adding a Switcher* section.

ADDING A CAMERA AND ASSOCIATING A SWITCHER

To add a camera and associate a switcher

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Cameras**. The **Cameras** screen appears in the display area.
3. Click **Save**.
4. Click **Add**. A **Camera** screen appears.
5. In the **Connected to area**, click **Switcher**. The **Switcher** drop-down list is enabled and displays the configured switcher.
6. Select the required switcher. The Device Settings for the switcher appear.
7. For detailed procedures about associating the switcher to the camera, see *Associating a Switcher to a Video Input*.

Note: You should have a camera physically connected to the input channel in the Vicon Switcher. In this case the camera must be physically connected to the channel 1.

ADDING A ANALOG MONITOR

To add an analog monitor

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Monitors**. The **Monitors** screen appears in the display area.
3. Click **Add**. A **Monitor** screen appears.
4. In the **Select Monitor Type**, select **Analog Monitor**.
5. In the **Monitor Name** box, type a name for the monitor.

Note: The camera number and the monitor number must be same. For example if you want the video output of camera number 1, then the monitor number must be 1.

6. Under the **Device Settings**, in the **Select Switcher** drop-down list, select the required switcher.
7. For detailed procedures about associating the switcher to the camera, see *Adding Monitors*.
8. Click **Save**.

ASSOCIATING A JOYSTICK CONTROLLER

To associate a joystick controller

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Joystick Controllers**. The **Joystick Controllers** screen appears in the display area.
3. Select the check box corresponding to the Joystick Controller, and then click **Update**. A **Joystick Controller** screen appears.
4. In the **Default Monitor** drop-down list, select the default monitor to be associated with the joystick controller. For example, if the monitor number is one to which you have associated the required switcher, then select Monitor 1 as the default monitor.
5. In the **Default Operator** drop-down list, select the default user to be associated with the joystick controller.

Note: An operator must be added before you add a joystick controller.

6. Click **Save**.

After these settings are made in MAXPRO VMS, restart the Trinity Services.

Note: Check whether you are able to drag and drop configured cameras on to the monitor.

UPDATING A SWITCHER

You can update a switcher to change or edit the settings like the recorder name, site and COM port.

To update a switcher

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Switchers**. The **Switchers** screen appears in the display area.
3. Select the check box corresponding to the switcher you want to update.
4. Click **Update**. The general settings for the switcher appears. You can modify the settings according to your needs.

DELETING A SWITCHER

To delete a switcher

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Switchers**. The **Switchers** screen appears in the display area.
3. Select the check box corresponding to the switcher you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

ASSOCIATING PARTITIONS TO SWITCHER

You can associate partitions to switcher. Associating a partition to a switcher restricts a non-associated user of the partition from viewing the switcher or changing the settings of the switcher.

Before you begin

- Add a Partition. See *Adding a Partition* for more information..

To associate partitions to a switcher

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.

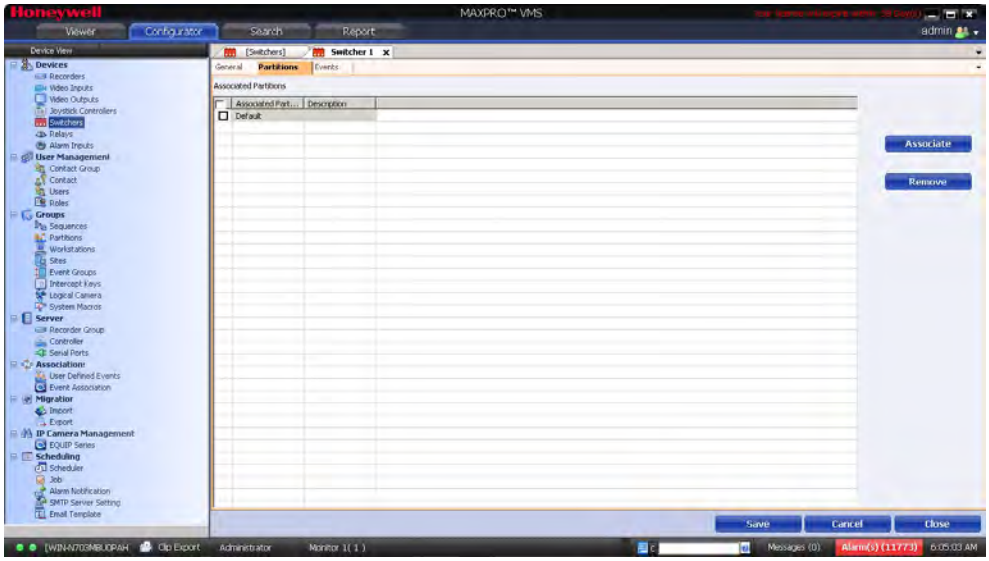

Figure 4-33 Switcher Partitions

2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.
4. Click **OK**.

To disassociate partitions from switcher

- Select the check box corresponding to the partition name, and then click Remove.

ASSOCIATING EVENTS TO SWITCHER

You can associate events to switcher. An alarm is triggered whenever an event occurs.

To associate events to a switcher

1. Click the **Events** tab. The screen displays the associated events, if any.

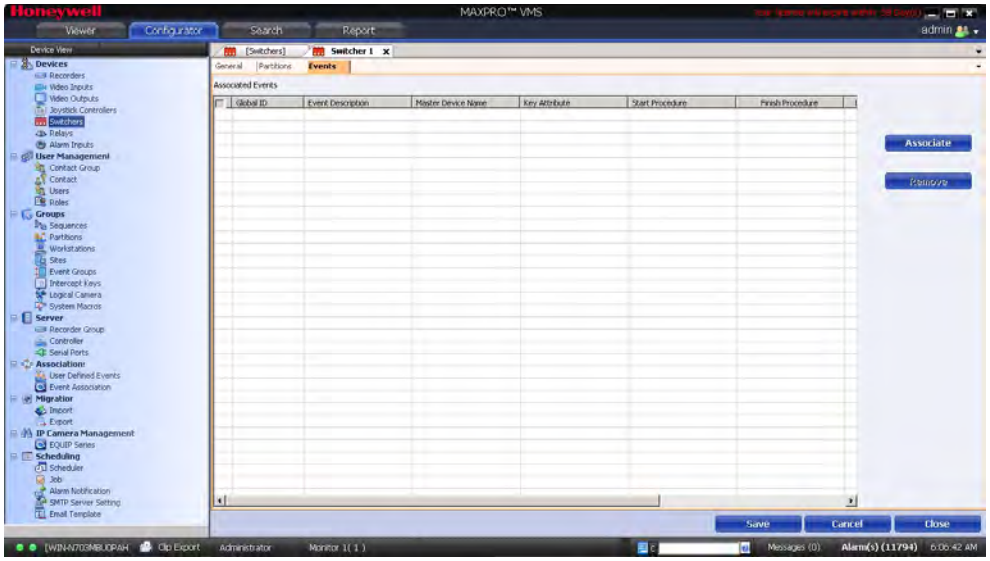

Figure 4-34 Switcher Events

2. Click **Associate**. The **Select Available Events** dialog box appears.
3. Select the check box corresponding to the event you want to associate.
4. Click **OK**.

To disassociate events from a switcher

- Select the check box corresponding to the event, and then click Remove.

To add event groups to events

1. Select the check box corresponding to the event you want to add the Event Group.
2. Double-click on the **Event Group** box. **Select Event Groups** dialog box appears.
3. Click the check box corresponding to the Event Group you want to add.
4. Click **OK**.

Note: You need to add an event group before you associates it to an event. See *Adding an Event Group* for more information.

To disable an event

1. Select the check box corresponding to the event you want to disable.
2. Click the cell under the **Disabled** column. A drop-down list is enabled.
3. Select **True** to disable the event.

To assign severity level

1. Select the check box corresponding to the event you want to assign the severity level.
2. Click the cell under the **Severity Level** column and edit the severity level.

Note: Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

To enter remarks

1. Select the check box corresponding to the event you want to enter remarks.
2. Click the cell under the **Remarks** column and type the remarks.
3. Type the remarks you want to enter.

To assign macros

1. Select the check box corresponding to the event you want to assign macros.
2. Click the cell under the **Start Procedure** column, and then type the required macro.
3. Click the cell under the **End Procedure** column, and then type the required macro.

RELAYS

Relay is an output contact that can be triggered from MAXPRO VMS. Relays can be connected to devices like switcher, recorder, cameras, keyboard, and high level device.Relays send signals that perform various actions. For example, you can set a relay to open the door automatically when a motion is detected in a particular region.

ADDING THE RELAY

Before you begin

- Add Site. See *Adding a Site* for more information.
- Add Switcher. See *Adding a Switcher* for more information.
- Add Recorder. *Adding a Recorder* for more information.
- Add Partition. See *Adding a Partition* for more information.
- Update Joystick Controller. See *Updating a Joystick Controller* for more information.

By default, a site and a partition are available. You can associate the relay to them or create new.

To add a relay

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Relays**. The **Relays** screen appears in the display area.

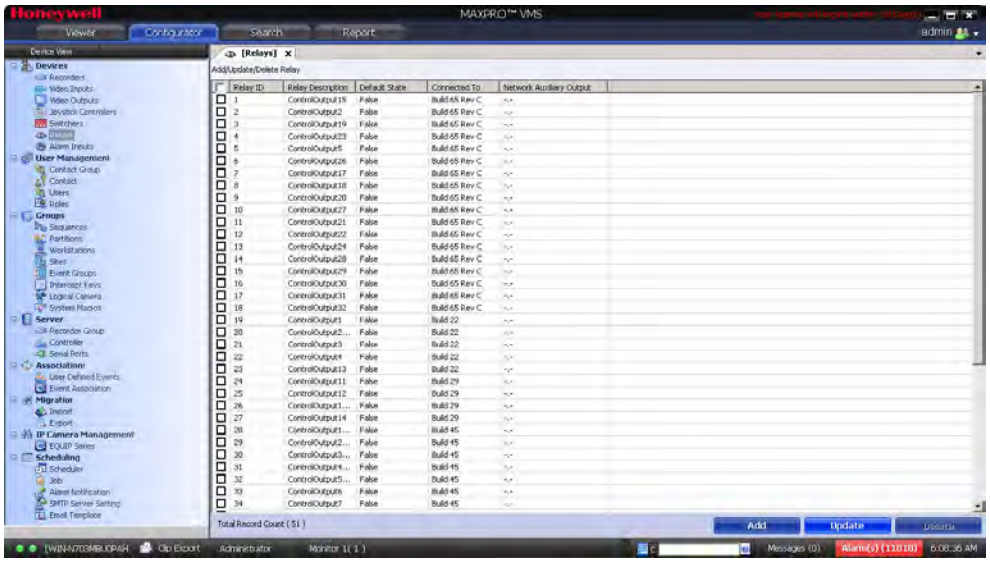

Figure 4-35 Relays

3. Click **Add**. The **Relay** screen appears.

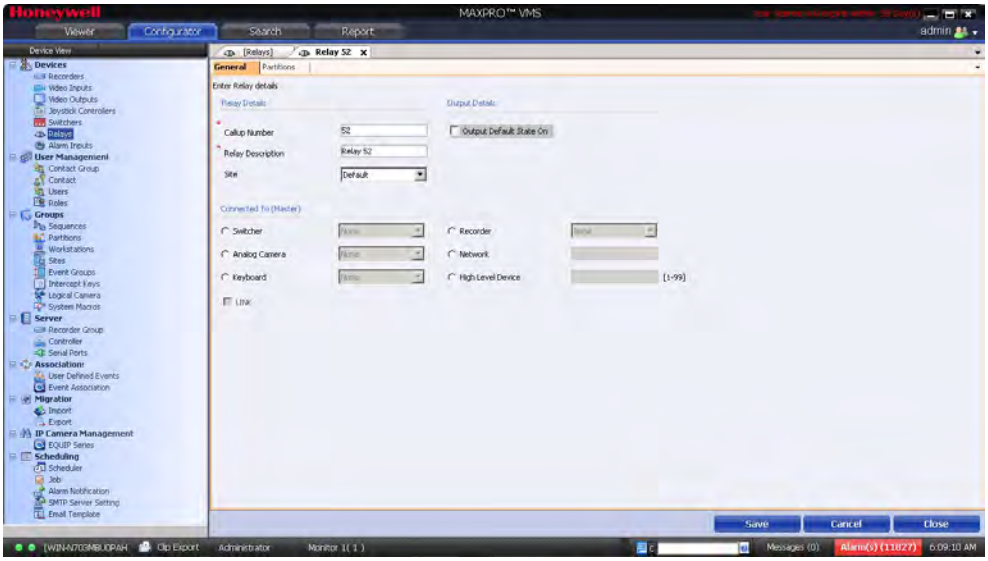

Figure 4-36 Relays General

4. In the **Callup Number** box, type the unique ID to identify the relay. By default MAXPRO VMS assigns the next available ID.
5. In the **Relay Description** box, type a description for the relay.
6. In the **Site** drop-down list, select the site.
7. In the **Connected To** section, click one of the devices from which you want to add a relay. The following table lists the available devices to which a relay can be connected.

Device	Description
Switcher	For details on connecting to a switcher, see *Connecting Relay to the Switcher*.
Analog Camera	For details on connecting to a analog camera, see *Connecting Relay to the Analog Camera*.
Keyboard	For details on connecting to a keyboard, see *Connecting the relay to Keyboard*.
Recorder	For details on connecting to a recorder, see *Connecting the relay to the Recorder*.
Network	For details on connecting to a network, see *Connecting Relay to the Network*.
High Level Device	For details on connecting to a high level device, see *Connecting Relay to the High Level Device*.

8. Select the **LINK check box** if you want to broadcast the status changes and actions performed on the current relay on the network.
9. Select the **Output Default State On** check box if you want the relay to be set to On, when the MAXPRO VMS is started.
10. Associate Partitions.
11. Click **Save**. The **Trigger Relay** options appear.
12. Click **On** to trigger relay.

13. Click **Off** to stop relay.

CONNECTING RELAY TO THE SWITCHER

Before you begin

- Add Switchers. See *Adding a Switcher* for more information.

To connect relay to a switcher

1. From the **Switcher** drop-down list, select the required switcher. The **Switcher Settings** appear.

Note: In the **SubrackID** box, the Subrack ID number where the relay module resides is displayed automatically. The valid range is 1 – 99. If a high level or mimic panel output is used, the number is prefixed with an “H”. If a keyboard output is used, the number is prefixed with a “K”. For VideoBlox subrack, this represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range: ‘V’+maximum communication ports.

---

2. In the **Subrack Slot**, type a slot number within the control subrack where the control output module resides.

Note: The valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks, and 1 for HD Series subracks. For VideoBlox subrack, this represents the physical control input slot number from AVBPIT alarm concentrator. Valid range is 1 to 255.

---

3. In the **Output Bit** section, select the required output that needs to be controlled by the relay. Each relay can control one or more output bits. Click Select All if you want all the output bits to be controlled by a single relay.
4. Click **Save**.

CONNECTING RELAY TO THE ANALOG CAMERA

Before you begin

- Add Cameras. See *Adding a Camera* for more information.

To connect relay to an analog camera

1. From the **Analog Camera** drop-down list, select the required camera. The **Device Settings** appears.

Note: In the **SubrackID** box, the Subrack ID number where the relay module resides is displayed automatically.The valid range is 1 – 99. If a high level or mimic panel output is used, the number is prefixed with an “H”. If a keyboard output is used, the number is prefixed with a “K”. For VideoBlox subrack, this represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range: ‘V’+maximum communication ports.

2. In the **Output Bit** section, select the required output that needs to be controlled by the relay. Each relay can control one or more output bits. Click Select All if you want all the output bits to be controlled by a single relay.

Note: In the **Subrack Slot**, the slot number within the control subrack where the control output module resides is displayed automatically. The valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks, and 1 for HD Series subracks. For VideoBlox subrack, this represents the physical control input slot number from AVBPIT alarm concentrator. Valid range is 1 to 255.

3. Click **Save**.

CONNECTING RELAY TO THE HIGH LEVEL DEVICE

To connect relay to a high level device

1. In the **High Level Device** box, type the device number. The **Device Settings** appear.
2. In the **SubrackID** box, type the Subrack ID number where the relay module resides.

Note: The valid range is 1 – 99. If a high level or mimic panel output is used, the number is prefixed with an “H”. If a keyboard output is used, the number is prefixed with a “K”. For VideoBlox subrack, this represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range is ‘V’+maximum communication ports.

3. In the Subrack Slot, the slot number within the control subrack where the control output module resides is displayed automatically.

Note: The valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks, and 1 for HD Series subracks. For VideoBlox subrack, this represents the physical control input slot number from AVBPIT alarm concentrator. Valid range is 1 to 255.

4. In the **Output Bit** section, select the required output that needs to be controlled by the relay. Each relay can control one or more output bits. Click Select All if you want all the output bits to be controlled by a single relay.
5. Click **Save**.

CONNECTING RELAY TO THE NETWORK

To connect relay to a network

1. In the **Network** box, type the network node and the video input device number from which you want the video input.
2. Click **Save**.

CONNECTING THE RELAY TO THE RECORDER

Before you begin

- Add Recorders. See *Adding a Recorder* for more information.

To connect relay to a analog camera

1. From the **Recorder** drop-down list, select the required recorder. The Output Settings appear.
2. In the **Relay ID** box, type the relay ID number for the recorder.
3. In the **Site ID** box, type the site ID of the recorder.
4. In the **Station ID** box, type the station ID of the recorder.
5. In the **Digital IO Type**, type the digital IO type of the recorder.
6. In the **Output Bit section**, select the required output that needs to be controlled by the relay. Each relay can control one or more output bits. Click **Select All** if you want all the output bits to be controlled by a single relay.
7. Click **Save**.

Note: Steps 3 through 9 are required only when you are connecting to Enterprise recorder.

CONNECTING THE RELAY TO KEYBOARD

To connect relay to a keyboard

1. From the **Keyboard** drop-down list, select the required joystick controller. The **Device Settings** appear.

Note: In the **SubrackID** box, the Subrack ID number where the relay module resides is displayed automatically. The valid range is 1 – 99. If a high level or mimic panel output is used, the number is prefixed with an “H”. If a keyboard output is used, the number is prefixed with a “K”. For VideoBlox subrack, this represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range is ‘V’+maximum communication ports.

---

2. In the **Output Bit** section, select the required output that needs to be controlled by the relay. Each relay can control one or more output bits. Click Select All if you want all the output bits to be controlled by a single relay.

Note: In the Subrack Slot, the slot number within the control subrack where the control output module resides is displayed automatically. The valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks, and 1 for HD Series subracks. For VideoBlox subrack, this represents the physical control input slot number from AVBPIT alarm concentrator. Valid range is 1 to 255.

3. Click **Save**.

ASSOCIATING PARTITIONS TO THE RELAY

You can associate partition to relay. Associating a partition to a relay restricts a non - associated user of the relay from changing the settings of the relay.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partitions to relay

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.

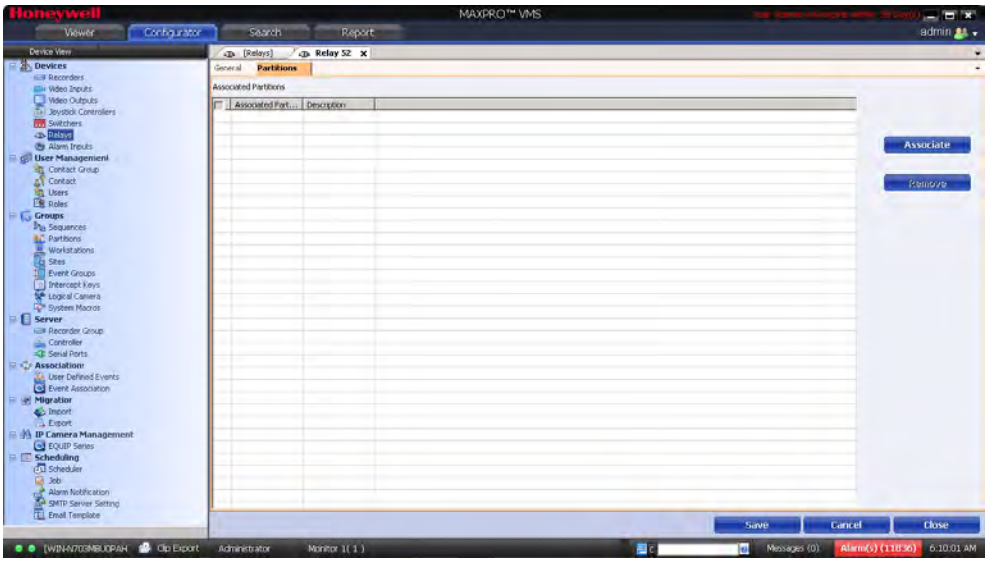

Figure 4-37 Relays Partitions

2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.
4. Click **OK**. The selected partition is displayed in the list of associated partitions.

To disassociate partitions to relay

- Select the check box corresponding to the partition name, and then click **Remove**.

DELETING THE RELAY

You can delete a relay when you no longer want to trigger a task that is based on a relay.

Before you begin

- Disassociate Partitions. *Associating Partitions to the Relay* for more information.

To delete a relay

1. Click the **Configurator** tab.

2. Expand **Devices** in the navigation area, and then click relays. The **Relays** screen appears in the display area.
3. Select the check box corresponding to the relay that you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

UPDATING THE RELAY

You can update a relay device to change its association with a partition and also to modify its settings.

To update a relay

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click relays. The **Relays** screen appears in the display area.
3. Select the check box corresponding to the relay you want to update.
4. Click **Update**. The settings for the relay appear. You can modify the settings.

ALARM INPUTS

Alarm inputs are used to raise alarms through an external device in MAXPRO VMS. These alarm inputs can be associated to devices like switcher, recorder, camera, keyboard, network and high level device.

ADDING AN ALARM INPUT

You can add an alarm input and associate it to the devices. These alarm inputs trigger alarm whenever an event occurs.

Before you begin

- Add Site. See *Adding a Site* for more information.
- Add Switcher. See *Adding a Switcher* for more information.
- Add Recorder. *Adding a Recorder* for more information.
- Add Partition. See *Adding a Partition* for more information.
- Update Joystick Controller. See *Updating a Joystick Controller* for more information.

By default, a site and a partition are available. You can associate the alarm input to them or create new.

To add an alarm input

1. Click the **Configurator** tab.
2. Expand the **Devices** branch in the navigation area, and then click **Alarm Inputs**. The **Alarm Input** screen appears in the display area.

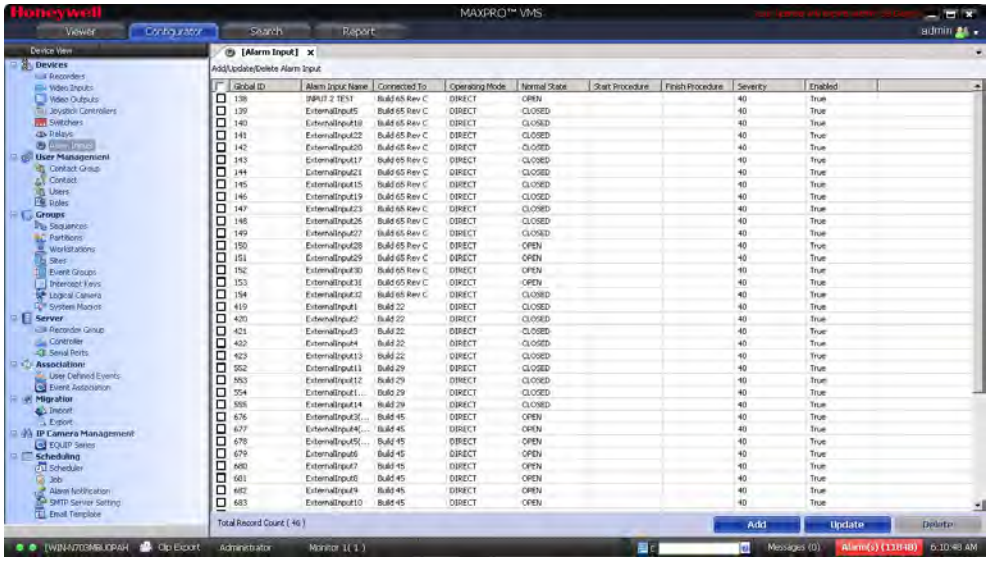

Figure 4-38 Alarm Input

3. Click **Add**. The **Alarm Input** screen appears.

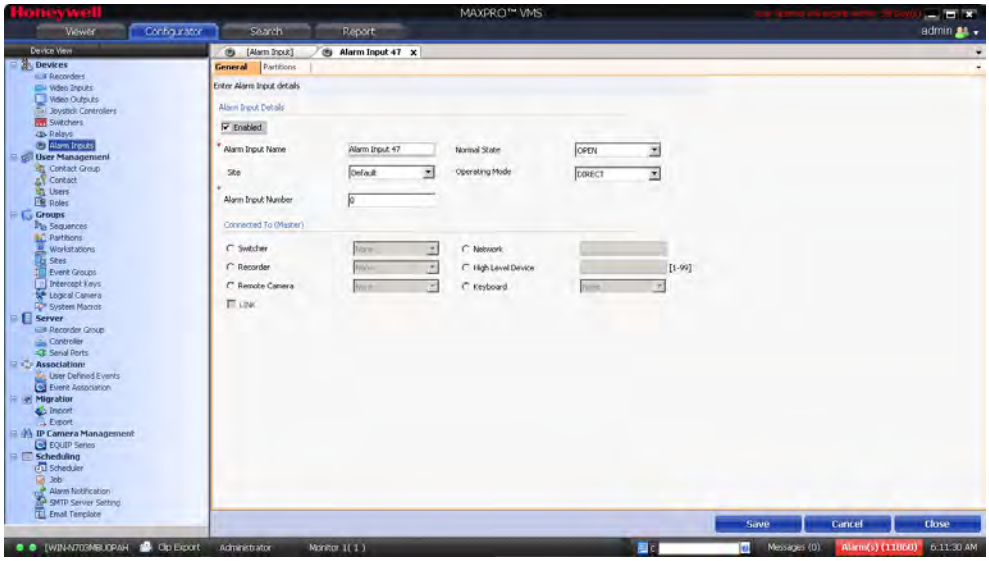

Figure 4-39 Adding an Alarm Input

4. The **Enabled** check box is selected by default. Clear this check box to disable the alarm input.
5. In the **Alarm Input Name** box, type the alarm input name.
6. From the **Site** drop-down list, select the required site.
7. In the **Alarm Input Number** box, type the alarm input number
8. In the **Normal State** drop-down list, select **Open** or **Closed** as the normal state for the alarm input.
9. From the **Operating Mode** drop-down list, select the required mode. The available modes are listed in the following table.

Modes	Description
Direct	The alarm condition activates or de-activates when it physically changes state, or is set or cleared with macros.
Latched	Once the alarm is triggered, it remains active until it is reset manually using the alarm clear option.
Toggle	The first time the alarm is triggered it becomes active, the next time it is cleared.

10. In the **Connected To** section, click one of the devices for which you want to add the alarm input. The following table lists the available devices to which an Alarm Input can be connected.

Device	Description
Switcher	For details on connecting a switcher, see *Connecting Alarm Input to the Switcher*.
Recorder	For details on connecting a recorder, see *Connecting Alarm Input to the Recorder*.

Device	Description
Remote Camera	For details on connecting a remote camera, see *Connecting Alarm Input to the Remote Camera*.
Keyboard	For details on connecting a keyboard, see *Connecting Alarm Input to the Keyboard*.
Network	For details on connecting a network, see *Connecting Alarm input to the Network*.
High Level Device	For details on connecting a high level device, see *Connecting Alarm Input to the High Level Device*.

11. Select the **LINK** check box if you want to broadcast the status changes and actions performed on the current alarm input on the network.
12. Associate Partition.
13. Click **Save**.

Note: You can switch on or switch off an alarm input using the **On** and **Off** buttons under **Trigger Alarm Input**.

CONNECTING ALARM INPUT TO THE NETWORK

To connect alarm input to a network

1. In the **Network** box, type the network node and the video input device number for which you want to associate the alarm input.
2. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type an alarm start macro. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type an alarm finish macro. When a detected alarm input returns to its normal state, the alarm finish macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

3. On the **Event Groups** tab, select the check box corresponding to the event group that you want to associate to the alarm input, and then click **Associate**.
4. Click **Save**.

CONNECTING ALARM INPUT TO THE RECORDER

To connect alarm input to a recorder

1. From the **Recorder** drop-down list, select the required recorder. The **recorder settings** appear.
2. In the **Alarm Input ID** text box under Input Settings tab, type the Alarm Input ID.
3. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type an alarm start macro. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type an alarm finish macro. When a detected alarm input returns to its normal state, the alarm finish macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

4. On the **Event Groups** tab, select the check box corresponding to the event group that you want to associate to the alarm input, and then click **Associate**.
5. Click **Save**.
6. For connecting alarm input to a Enterprise, see *Connecting to Enterprise*.

CONNECTING TO ENTERPRISE

1. On the **Input Settings** tab, specify the following details.

Site ID	Type the site ID of the recorder.
Station ID	Type the station ID of the recorder.
Bit Filter Type	Type the bit filter type
Bit Filter ID	Type the bit filter ID.
Source Information	The source information is automatically updated when the **Discover Cameras** feature is used.

2. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type the required macro to start the event. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type the required macro to end the event. When a detected alarm input returns to its normal state, the alarm end macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

CONNECTING ALARM INPUT TO THE REMOTE CAMERA

To connect alarm input to a remote camera

1. From the **Remote Camera** drop-down list, select the required camera. The **remote camera** settings appear.
2. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type an alarm start macro. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type an alarm finish macro. When a detected alarm input returns to its normal state, the alarm finish macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

3. On the **Event Groups** tab, select the check box corresponding to the event group that you want to associate to the alarm input, and then click **Associate**.
4. Click **Save**.

CONNECTING ALARM INPUT TO THE SWITCHER

To connect alarm input to a switcher

1. From the **Switcher** drop-down list, select the required switcher. The **switcher settings** appear.
2. On the **Advanced Settings** tab, specify the following details.

Settings	Description
Subrack ID	Specifies the subrack ID number where the alarm input module resides. The valid range is 1 – 99. If a high level or mimic panel alarm is used, the number is prefixed with an “H”. If a keyboard alarm is used, the number is prefixed with a “K”. For VideoBlox Subrack, this ID represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range is ‘V’+maximum communication ports.
Subrack Slot	This field defines the slot number within the control subrack where the alarm input module resides. Valid slot numbers are 1 – 32 for I/O and combination video/I/O subracks, and 15 – 17 for HD Series subracks. For VideoBlox Subrack, this number represents the alarm concentrator AVBPIT number. Valid range is 0 to 255.

3. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type an alarm start macro. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type an alarm finish macro. When a detected alarm input returns to its normal state, the alarm finish macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

4. On the **Event Groups** tab, select the check box corresponding to the event group that you want to associate to the alarm input, and then click **Associate**.
5. Click **Save**.

CONNECTING ALARM INPUT TO THE HIGH LEVEL DEVICE

To connect alarm input to a high level device

1. In the **High Level Device** box, type the device number.

2. On the **Advanced Settings** tab, specify the following details

Settings	Description
Subrack ID	The Subrack ID number where the alarm input resides is displayed automatically. **Note:** The valid range is 1 – 99. If a high level or mimic panel output is used, the number is prefixed with an “H”. If a keyboard output is used, the number is prefixed with a “K”. For VideoBlox subrack, this represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range: ‘V’+maximum communication ports.
Subrack Slot	Type a slot number within the control subrack where the alarm input resides.

3. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type an alarm start macro. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type an alarm finish macro. When a detected alarm input returns to its normal state, the alarm finish macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

4. On the **Event Groups** tab, select the check box corresponding to the event group that you want to associate to the alarm input, and then click **Associate**.
5. Click **Save**.

CONNECTING ALARM INPUT TO THE KEYBOARD

To connect alarm input to a keyboard

1. From the **keyboard** drop-down list, select the required joystick controller. The keyboard settings appear.

2. On the **Advanced Settings** tab, specify the following details.

Settings	Description
Subrack ID	The Subrack ID number where the alarm input resides is displayed automatically. **Note:** The valid range is 1 – 99. If a high level or mimic panel output is used, the number is prefixed with an “H”. If a keyboard output is used, the number is prefixed with a “K”. For VideoBlox subrack, this represents the ‘V’+communication port number to which the VideoBlox alarm concentrator AVBPIT is connected. Valid range: ‘V’+maximum communication ports.
Subrack Slot	Type a slot number within the control subrack where the alarm input resides.

3. On the **Event Settings** tab, specify the following details.

Settings	Description
Event Description	Type a description for the event.
Start Macro	Type an alarm start macro. When an alarm condition is detected for an alarm input, the alarm start macro is executed.
Finish Macro	Type an alarm finish macro. When a detected alarm input returns to its normal state, the alarm finish macro is executed.
Global ID	Type a unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event settings.
Severity	Type a severity level. **Note:** Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

4. On the **Event Groups** tab, select the check box corresponding to the event group that you want to associate to the alarm input, and then click **Associate**.
5. Click **Save**.

Associating Partitions to the Alarm Input

You can associate partition to alarm inputs. Associating a partition to an Alarm Input restricts a non - associated user from viewing or modifying the Alarm Input.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partitions to alarm input

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.
2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.
4. Click **OK**. The selected partition is displayed in the list of associated partitions.

To disassociate partitions from alarm input

- Select the check box corresponding to the partition name, and then click **Remove**.

DELETING THE ALARM INPUT

You can delete an alarm input when you do not want external device to raise an alarm. All the associations made to the alarm inputs are removed, when you delete it.

Before you begin

- Disassociate Partitions. *Associating Partitions to the Alarm Input* for more information.

To delete alarm input

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Alarm Inputs**. The **Alarm Input** screen appears in the display area.
3. Select the check box corresponding to the alarm inputs that you want to delete.
4. Click **Delete**. A confirmation message appears on the top of the display area.
5. Click **Yes**.

UPDATING THE ALARM INPUT

You can update alarm input to change its association with a partition and also to modify its settings.

To update alarm input

1. Click the **Configurator** tab.
2. Expand **Devices** in the navigation area, and then click **Alarm Inputs**. The **Alarm Input** screen appears in the display area.
3. Select the check box corresponding to the alarm input you want to update.
4. Click **Update**. The settings for the alarm input appear. You can modify the settings.

CONTACT GROUP

Contact group is a group of users in MAXPRO VMS. You can create contact groups of users with different roles. For example, you can create a contact group of users who are associated to operator role. Alarm notifications can be sent to a contact group.

ADDING A CONTACT GROUP

You can add a user group to group the users on the basis of the roles. Only the “admin” user can add a contact group in MAXPRO VMS.

Before you begin

- Add Roles. See *Adding a role* for more information.
- Add Users. See *Adding a User* for more information.
- Add Workstations. *Adding a Workstation* for more information.
- Add Partition. See *Adding a Partition* for more information.

To add a contact group

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Contact Group**. The **Contact Group** screen appears in the display area.

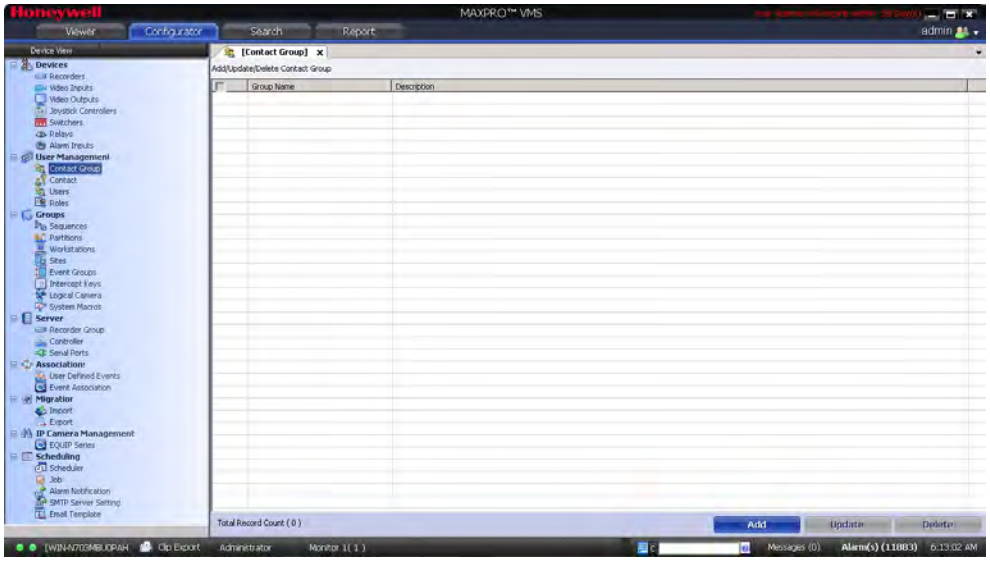

Figure 4-40 Contact Group

3. Click **Add**. The settings for the contact group appears.

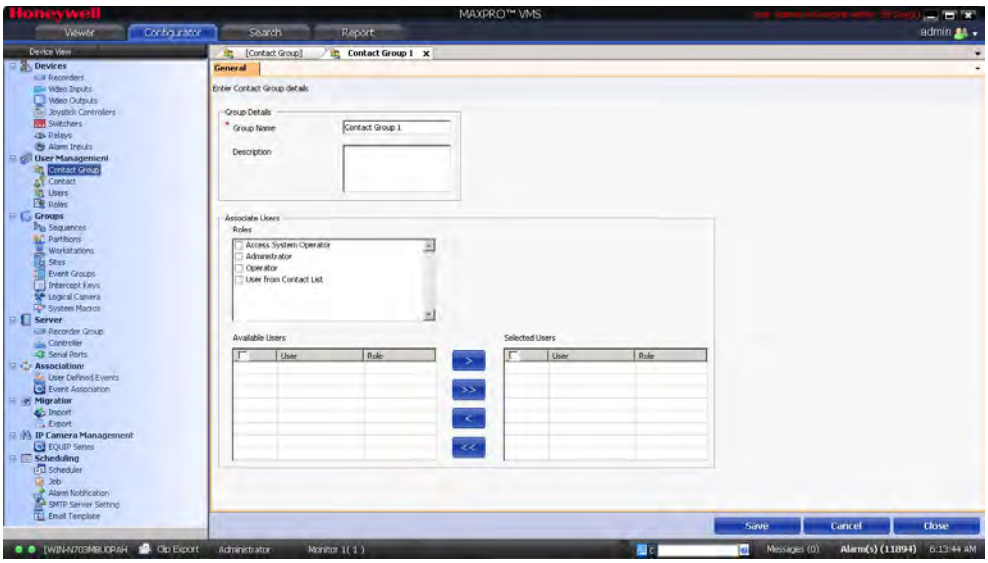

Figure 4-41 Adding a Contact Group

4. In the **Group Name** box, type the name for the group.
5. In the **Description** box, type a description for the contact group.
6. In the **Associate Users** section, select the required role. The users associated to the role are displayed in the Available Users section.
7. In the **Available Users** section, select the check box corresponding to the user whom you want to select, and then click > or click >> to select all the users. Similarly, select to deselect < or << to deselect all.
8. Click **Save**.

DELETING THE CONTACT GROUP

You can delete a contact group when you no longer want to keep the contact group.

To delete a contact group

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Contact Group**. The **Contact Group** screen appears in the display area.
3. Select the check box corresponding to the contact group that you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

UPDATING THE CONTACT GROUP

You can update a contact group to change the users and roles for a contact group.

To update a contact group

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Contact Group**. The **Contact Group** screen appears in the display area.
3. Select the check box corresponding to the contact group you want to update.
4. Click **Update**. The settings for the contact group appear. You can modify the settings.

CONTACTS

ADDING A CONTACT

You can add and store a contact in MAXPRO VMS. Only an user with administrator privileges can add contacts.

To add a contact

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Contact**. The **Contact** screen appears in the display area.

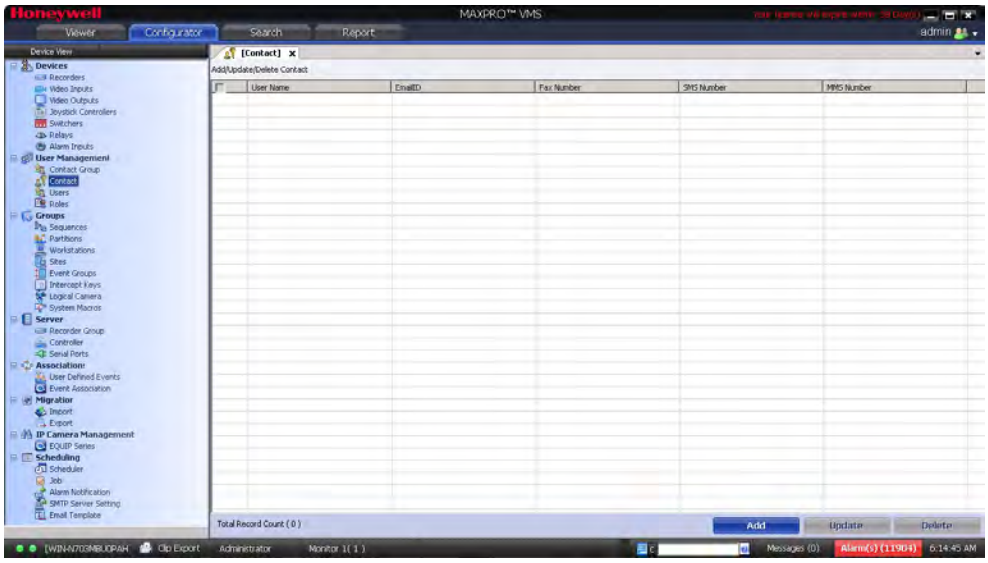

Figure 4-42 Contact

3. Click **Add**. The general settings for the contact appears.

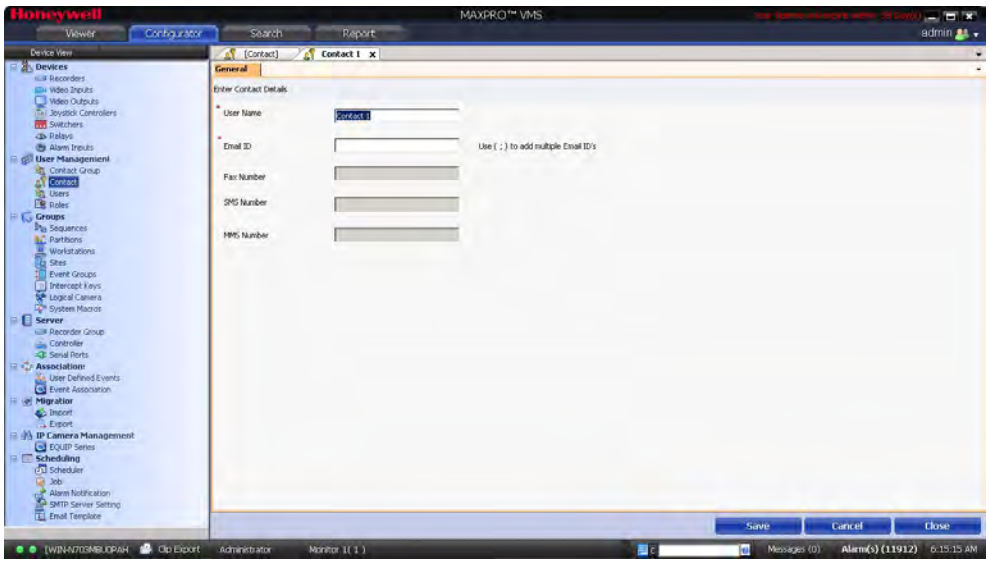

Figure 4-43 Adding a Contact

4. In the **User Name** box, type a name for the user.

5. In the **Email ID** box, type the email ID for the user, if required.
6. Click **Save**.

USERS

A user in MAXPRO VMS is responsible for performing various operations like viewing video, reporting alarms, and other video surveillance tasks. You can create two types of users in MAXPRO VMS —System Local User and Windows User. Any new user when added is automatically associated to all the event groups and joystick controller. You can remove the association of a user to event groups and joystick controller to limit the access.

SYSTEM LOCAL USER

A system local user can access only MAXPRO VMS. This user may not have the access to client workstation.

WINDOWS USER

A windows user can access client workstation and also MAXPRO VMS.

USERS AND ROLES

Roles are provided to a user. These roles comprise in them a set of privileges. When a user is associated to a role, the privileges that are available for the role are also assigned to the user.

THE “ADMIN” USER

The first time MAXPRO VMS is deployed at a site, a default user named “admin” is created. The “admin” user is assigned the role “administrator”. Only this user can add new users, assign roles to the added users, add or modify the privileges to the users, and also assign the users to partitions.

USERS AND PARTITIONS

A partition is a logical grouping of video devices. Partitions are associated to users. Users are directly associated to the partition which is associated to the role. Users can view and manage the video devices that are grouped inside the associated partitions. A user can also be associated to other partitions which are not associated to the assigned role.

USERS AND JOYSTICK CONTROLLERS

Joystick controllers are keyboards that are attached to video outputs in MAXPRO VMS. Users are associated to joystick controllers. These users can use the associated joystick controllers to carry the video surveillance tasks in MAXPRO VMS.

USERS AND EVENT GROUPS

An event group is a set of events that occur on video devices. Users are associated to Event Groups. When any event in the event group occurs, only the users who are associated to the event group can acknowledge the event.

USERS AND WORKSTATIONS

A workstation is a computer in which the MAXPRO VMS user interface is installed. Workstations are associated to Users. Users associated to a workstation can log on to MAXPRO VMS user interface and perform various actions. Users are directly associated to the workstation which is associated to the role. A user can be associated to other workstations also which are not associated to a role.

ADDING A USER

You can add a user by providing a unique user name and a password.

Only “admin” can add a new user in MAXPRO VMS.

After you add a new user, you can assign a role to it. After the role is assigned to the user, the privileges that are defined as a part of the role are also added to the user. You can add or remove any privileges for the specific user-role combination using the “Customized Privileges” option.

Before you begin

- Add Role. See *Adding a role* for more information.

By default, a partition and a workstation are available. You can associate a user to them or create new.

To add a user

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Users**. The **Users** screen appears in the display area.

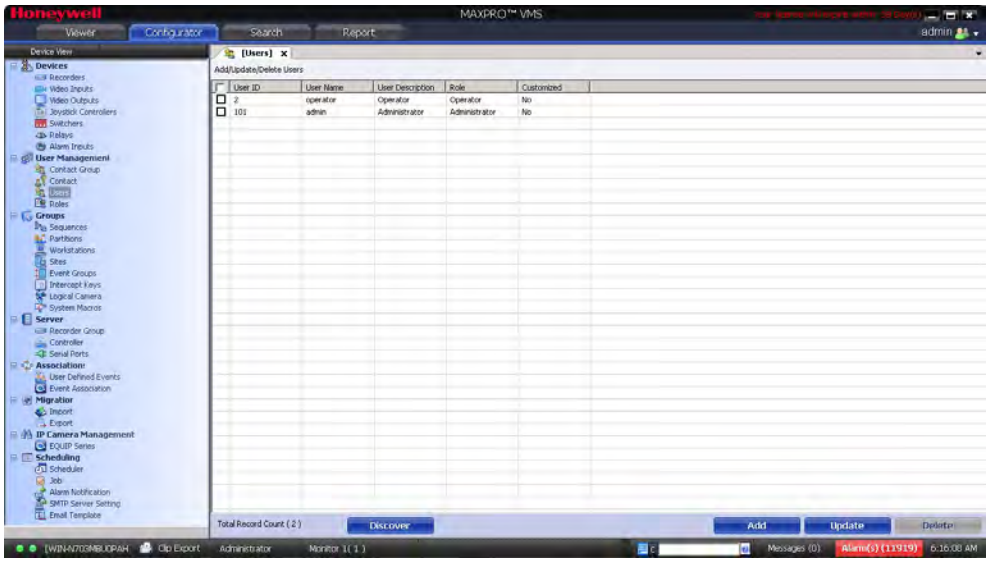

Figure 4-44 Users

3. Click **Add**. The **General Settings** tab appears.

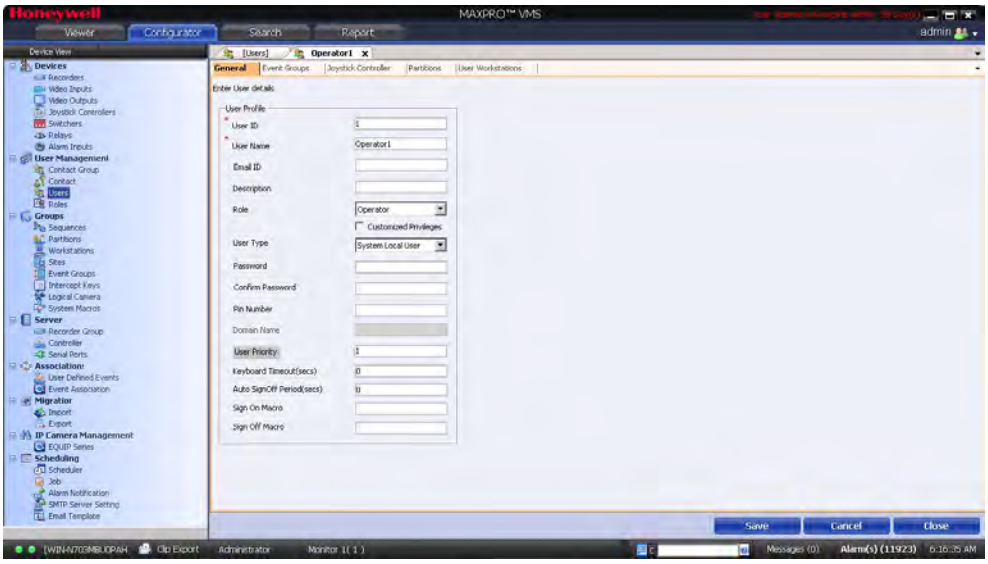

Figure 4-45 Adding User

4. In the **User ID** box, type a name for the user.
5. In the **User Name** box, type the name of the user.
6. In the **Description** box, type the required description.
7. In the **Role** box, select the role you want to assign to the user.
8. Select the **Customized Privileges** check box to enable or disable privileges for a user. The following table lists the privileges you can enable for a user.

Privileges	Description
Viewer	
Viewer Access	To restrict access to viewer tab.
Site View	To view sites.
Alarm	To view alarms.
ImageClipTreeView	To view image clip tree.
Message Box	To view message box.
MyDevices	To view MyDevices.
Shared Devices Permission	To view and restrict shared devices.
KeyboardUtility	To access virtual keyboard.
Store Pre-shots	To store pre-shots
Reloading Device Connections	To reload the device connections.
View/Update License	To view or update license.
Iris Access	To access iris of the camera.
Focus Access	To access focus access of the camera.
Monitors	To view monitors.
Sequences	To view sequences.
Salvo Views	To view salvo.
Add My Salvo View	To add my salvo view.
Modify My Salvo View	To modify my salvo view.
Delete My Salvo View	To delete my salvo view.
Add Shared Salvo View	To add shared salvo view.
Modify Shared Salvo View	To modify shared salvo view.

Privileges	Description
Delete Shared Salvo View	Delete Shared Salvo View.
Add or update Surrounding Camera	To add or update surrounding camera.
Enable/Disable Camera	To enable or disable the cameras.
Configure Privacy	To configure the privacy settings.
Show Calender Search	To display the calender search.
Time Line	
TimeLine Access	To allow the user to access TimeLine window.
Clip Delete	To delete video clips.
Image Delete	To delete images.
Create Bookmark	To create bookmark.
View Bookmark	To view bookmark.
Delete Bookmark	To delete bookmark.
Create Loop	To allow user to create loop.
Update loop	To allow user to update loop.
Clip Creation	To allow user to create clips.
Configurator	
Configurator Access	To allow user to access configurator.
Add Switcher	To allow user to add switcher.
Update Switcher	To allow user to update switcher.
Delete Switcher	To allow user to delete switcher.
Add System Macro	To allow user to add system macro.
Update System Macro	To allow user to update system macro.
Delete System Macro	To allow user to delete system macro.
Add Logical Camera	To allow user to add logical camera.
Update Logical Camera	To allow user to update logical camera
Delete Logical Camera	To allow user to delete logical camera
Add Relay	To add relay.

Privileges	Description
Update Relay	To update relay.
Delete Relay	To delete relay.
Add Alarm Input	To add an alarm input.
Update Alarm Input	To update an alarm input.
Delete Alarm Input	To delete an alarm input.
Update Controller	To update controller.
Import	To Import files into MAXPRO VMS.
Export	To export the MAXPRO VMS files.
Configure Equip Camera	To configure equip camera.
Cold/Warm Boot	To allow user to boot.
Add Job	To add a job.
Update Job	To update a job.
Delete Job	To delete a job.
Add Contact	To add a contact.
Update Contact	To update a contact.
Delete Contact	To delete a contact.
Add Contact Group	To add a contact group.
Update Contact Group	To update a contact group.
Delete Contact Group	To delete a contact group.
Add User	To add new users.
Delete User	To allow user to delete new users.
Modify User Privilege	To modify user privilege.
Add Recorder	To allow user to add recorder.
Update Recorder	To allow user to update recorder.
Delete Recorder	To allow user to delete recorder.
Add Video Input	To allow user to add Video Input.
Update Video Input	To allow user to update video input.
Delete Video Input	To allow user to delete video input.
Add Video Output	To allow user to add video output.

Privileges	Description
Update Video Output	To allow user to update video output.
Delete Video Output	To allow user to delete video output.
Add Sequence	To allow user to add sequence.
Update Sequence	To allow user to update sequence.
Delete Sequence	To allow user to delete sequence.
Add Port	To allow user to add a port.
Update Port	To allow user to update a port.
Delete Port	To allow user to delete a port.
Add Partition	To allow user to add a partition.
Update Partition	To allow user to update a partition.
Delete Partition	To allow user to delete a partition.
Add Site	To allow user to add a site.
Update Site	To allow user to update a site.
Delete Site	To allow user to delete a site.
Add Workstation	To allow user to add a workstation.
Update Workstation	To allow user to update a workstation.
Delete Workstation	To allow user to delete a workstation.
Add Event Group	To allow user to add event group.
Update Event Group	To allow user to update event group.
Delete Event Group	To allow user to delete event group.
Add Intercept	To allow user to add intercept keys.
Update Intercept	To allow user to update joystick controller.
Delete Intercept	To allow user to delete intercept
Update Joystick Controller	To allow user to update joystick controller
Add Role	To allow user to add role.
Update Role	To allow user to update role.
Delete Role	To allow user to delete role.
Search	
Search Access	To allow user to access search features.
Clip Archive	To allow user to perform clip archive.
Clip Restore	To allow user to perform clip restore.

Privileges	Description
Clip Delete	To allow user to perform to delete clip.
Reports	
Report Access	To allow user to access report features.
Controller Operator Privileges	
Display Name	To display the users name.
Multiple SignOn	To allow user to be signed on to more than one keyboard at a time.
Swap PTZ Up Down	To reverse the up/down control of a pan/tilt camera when it is being used by user.
Scan Set	To allow user to edit scan sequences.
Camera View Set	To allow user to set PTZ camera views.
UserMacro Set	To allow user to create user keyboard macros
Camera Analog PTZ	To allow user to set PTZ options for analog camera.
Standard Device	To allow user to control standard device functions.
Video Recorder	To allow user to control VCR functions.
Smart Device	To allow user to control smart device functions.
Controller Menu Access	
Video Disable	To disable live video view for a user.
ScanSequence Lock Unlock	To allow user to lock or unlock scan sequences.
VideoControl Lock Unlock	To allow user to lock or unlock video control.
Set Clock	To allow user to set the system time and date.
SignOff	To allow user to sign off from a key board.
Change Pin	To allow user to change the PIN of all system users.
Status Information	To allow user to change the current system status.
Alarm Enable Disable	To allow system user to enable or disable system alarms.
System Configuration	To allow user to run the Windows SetMax configuration editor, save the current system environment as the default settings, or exit to Windows.
UserMacro Lock Unlock	To allow user to lock or unlock user macros.
ToolBar Buttons	
SalvoLayouts...	To allow user to add or access different salvolayouts.

Privileges	Description
Surrounding Camera	To allow user to view surrounding cameras.
Full Screen Mode	To allow user to view full screen mode.
Sync PlayBack Mode	To allow user to access the sync playback mode.
Remote Monitor Mode	To allow user to access the remote monitor mode.
Incident management Mode	To allow user to access the incident management mode.
Create Salvo	To allow user to create a salvo.
Application Launch Pad	To allow user to access the application launch pad.
Salvo Snapshot	To allow user to capture a salvo snapshot.
Instant Clip Export	to enable user to instantly export a clip.
Snapshot	To capture a snapshot.
Color Correction	Allow user to perform color correction
Flip	Allow user to flip a video
Mirror	Allow user to mirror view a video
Preview	Allow user to preview a video
Remove Text Overlay	Allow user to remove text overlay
Analytics	
Add Analytics server	To add analytics server
Update Analytics server	To update analytics server
Delete Analytics server	To delete analytics server
Launch HVA Configurator	To launch HVA configurator
Launch HVA Live Monitor	To launch HVA Live Monitor
Reports and Foresenics	To access the reports and forsenics
Enable Analytics Option for Camera	To allow user to enable the analytics option for camera

Note: To enable all the privileges select the **Allow All** check box and to deny all the privileges, select the **Deny All** check box.

9. From the User Type drop-down list, select **System Local User** or **Windows User**.
10. In the **Password** box, type the user password.
11. In the **Confirm Password** box, retype the user password.
12. In the **Pin Number** box, type the Pin number. The Pin number is required only for Ultrakey keyboard and not required for MAXPRO VMS client login.
13. In the **Domain Name** box, type the name of the domain. Currently this box is disabled.
14. In the **Keyboard Timeout (Sec)** box, type the time out value.
15. In the **Auto SignOff Period (Sec)** box, type the time out value.
16. In the **Sign On Macro** box, type the sign on macro.
17. In the **Sign Off Macro** box, type the sign off macro.
18. Associate Partitions. See *Associating Partitions to the User* for more information.
19. Associate Joystick Controllers. See *Associating joystick controller to users* for more information.
20. Associate Event Groups. See *Associating Event Groups to Users* for more information.
21. Associate Workstations. *Associating Workstations to the Users* for more information.
22. Click **Save**.

ASSOCIATING PARTITIONS TO THE USER

You can associate partitions to a user. Associating partitions to a user enables the user to perform video surveillance tasks for all the video devices that are grouped in the partition.

You can associate more than one partition to a user.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partitions to a user

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.

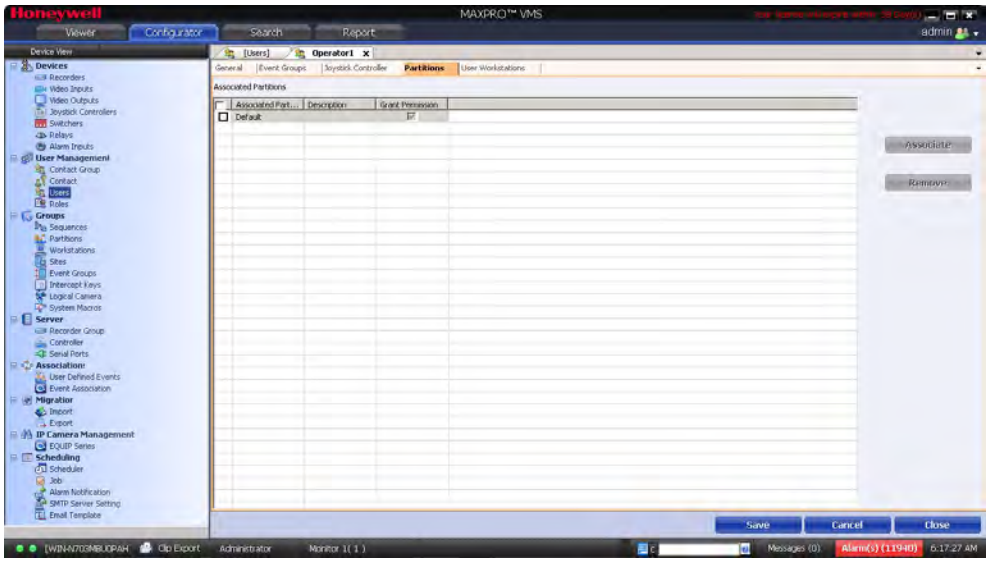

Figure 4-46 User Partitions

2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.
4. Click **OK**.

To disassociate partitions from a user

- Select the check box corresponding to the partition name, and then click **Remove**.

ASSOCIATING WORKSTATIONS TO THE USERS

You can associate workstations to users to log on to MAXPRO VMS user interface and perform various actions.

Before you begin

- Add a Workstation. *Adding a Workstation* for more information.

To associate a user to workstation

1. Click the **User Workstations** tab. The screen displays the associated workstations if any.

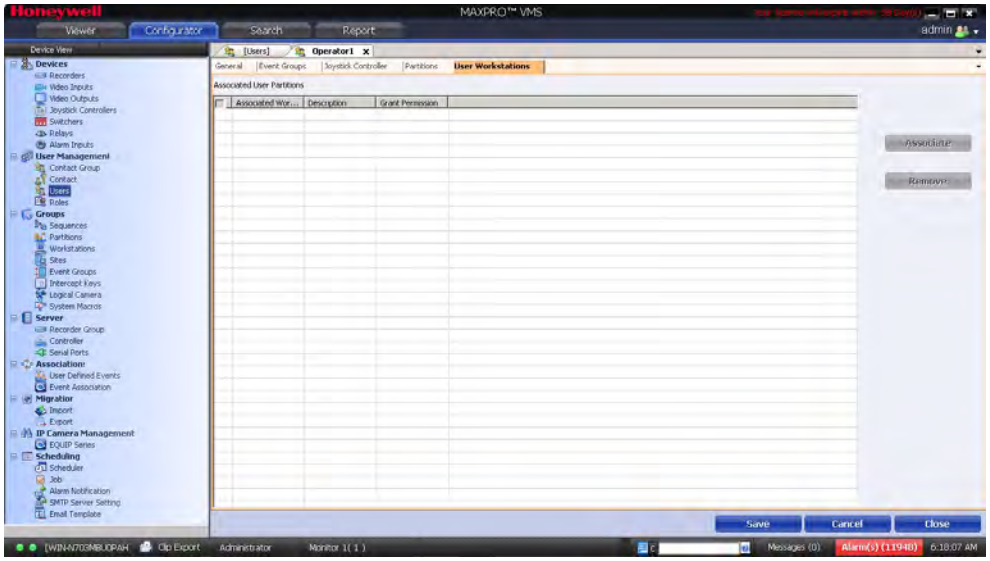

Figure 4-47 User Workstations

2. Click **Associate**. The **Select User Workstation** dialog box appears.
3. Select the check box corresponding to the workstation name you want to associate.
4. Click **OK**.

To disassociate workstation from a user

- Select the check box corresponding to the workstation name, and then click **Remove**.

ASSOCIATING JOYSTICK CONTROLLER TO USERS

You can associate users to joystick controllers to perform video surveillance tasks in MAXPRO VMS.

Before you begin

- Add a joystick controller.

To associate the joystick controller to a user

1. Click the **Joystick Controller** tab. The screen displays the associated joysticks if any.

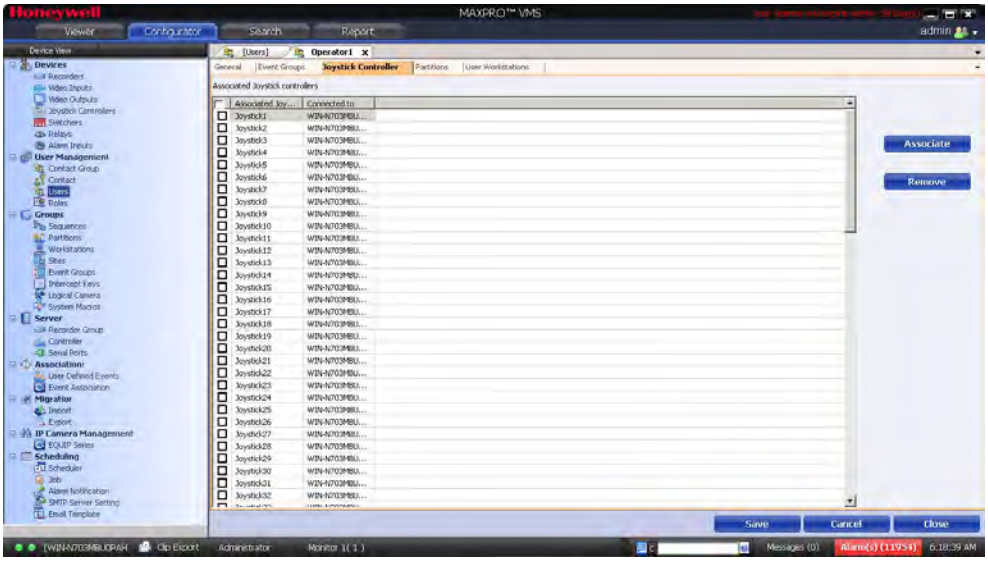

Figure 4-48 User Joystick Controller

2. Click **Associate**. The **Select Joystick Controller** dialog box appears.
3. Select the check box corresponding to the joystick name you want to associate.
4. Click **OK**.

By default, all the joystick controllers are associated when a user is added. You can remove the joystick controllers that you do not require.

To disassociate Joystick Controller from user

- Select the check box corresponding to the joystick name, and then click **Remove**.

ASSOCIATING EVENT GROUPS TO USERS

You can associate a user to a event group to acknowledge the event that occurs in it.

Before you begin

- Add Event Group.

To associate a event group to a user

1. Click the **Event Groups** tab. The screen displays the associated event groups if any.

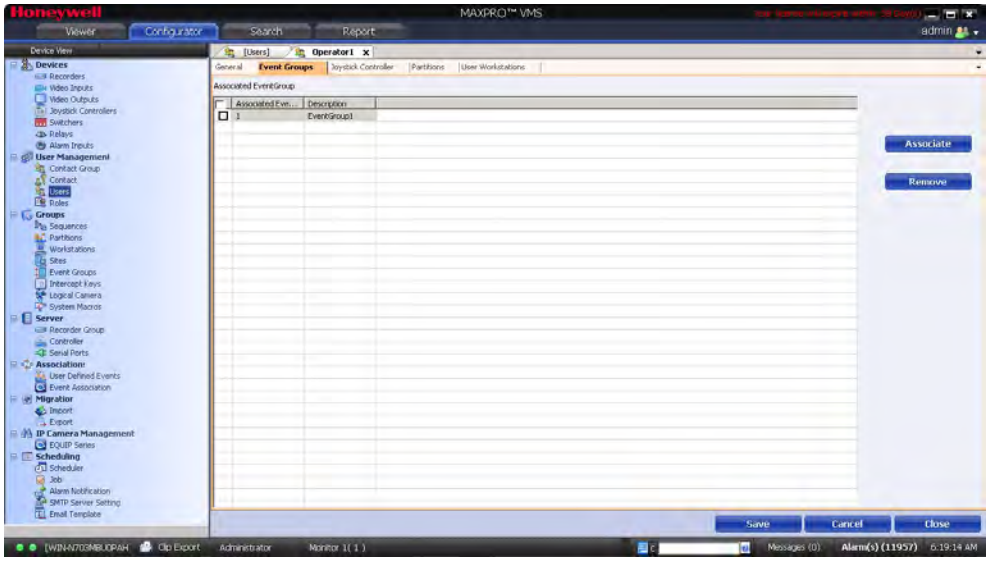

Figure 4-49 User Event Groups

2. Click **Associate**. The **Select Event Groups** dialog box appears.
3. Select the check box corresponding to the Event Group name you want to associate.
4. Click **OK**.

To disassociate event group from a user

- Select the check box corresponding to the Event Group name, and then click **Remove**.

DISCOVERING AND IMPORTING USERS

You can discover users connected to a domain or workstation and add them to the MAXPRO VMS.

To discover and import users

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Users**. The **Users** screen appears in the display area.
3. Click **Discover**. The **User Discovery Details** screen appears.
4. In the **Domain/Workgroup** drop-down list, select the domain or workgroup.
5. In the **Name Filter** box, type the name which you want to discover.

Note: If you want to search more than one name belonging to the same category, type the full name or partial name succeeded by a "*", and then click Query. For example, to search users who have their first name as John, type John* or Joh*, and then click Query.

---

6. Click **Query**. The results are displayed in the Results section. The users who are not added to MAXPRO VMS are listed in green color.
7. Select the check box corresponding to the required user.
8. In the **User Role** drop-down list, select a role for the user.

9. Click **Import**. The user is added and his name is listed in red color.

Note: You can skip step 5 if you do not want to use name filter option.

10. Click **Reset** to restore default settings or to discover new users.

UPDATING A USER

You can modify the settings of user to change the user ID, password and enable privileges. You can update user settings only if you have admin rights.

To update a user

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Users**. The **Users** screen appears in the display area.
3. Select the check box corresponding to the user.
4. Click **Update**. The general settings for the user appear. You can modify the settings.

DELETING A USER

You can remove a user from MAXPRO VMS. When you delete a user, all the associations made to the user are also removed.

To delete a user

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Users**. The **Users** screen appears in the display area.
3. Select the check box corresponding to the user you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

ROLES

The users in MAXPRO VMS perform various video surveillance operations. The surveillance operations can be monitoring the live video, recording scenes of interest and so on. Some of these operations can be critical while some can be routine ones that are performed every day.

A user can be responsible for carrying out the routine tasks or critical tasks. This responsibility for performing various tasks is provided to the users by means of roles. With every role, there are a set of predefined privileges that are also assigned to the user. While a role can be just a label that is assigned to a user, like Operator or Administrator, it is the privileges that provide the right and responsibility for carrying out the operations.

Administrator and operator are the predefined roles in MAXPRO VMS and consists of a set of privileges. The role Administrator cannot be deleted or updated. Apart from the predefined roles, you can add a new role with a set of privileges. When you associate users to the role, the privileges that are defined as a part of the role is also added to the user. Any new partition and workstation added are automatically associated to the administrator role. If required, you can also add or remove privileges for a user-role combination. The modified set of privileges is applied only to the specific user-role combination and does not change the privilege set for the role.

ROLES AND PARTITIONS

A partition is a logical grouping of video devices. Partitions are associated to Roles. Roles are assigned to users, which enable them to view and manage the video devices that are grouped inside the associated partitions.

ROLES AND WORKSTATIONS

A workstation is a computer in which the MAXPRO VMS user interface is installed. Workstations are associated to Roles. Roles are assigned to users which enables them to log on to MAXPRO VMS user interface and perform various actions.

ADDING A ROLE

You can add a new role by providing a role name. After adding a role, you can associate users to it. The role along with its set of privileges is added to the user.

You can also add or remove privileges to the user-role combination. In addition, you can also deny all privileges to the user-role.

Before you begin

- Add Workstations. See *Adding a Workstation* for more information.
- Add Partition. See *Adding a Partition* for more information.

By default, a partition and a workstation are available. You can associate a role to them or create new.

To add a role

1. Click the **Configurator** tab.
2. Expand **User Management** in the navigation area, and then click **Roles**. The **Roles** screen appears in the display area.

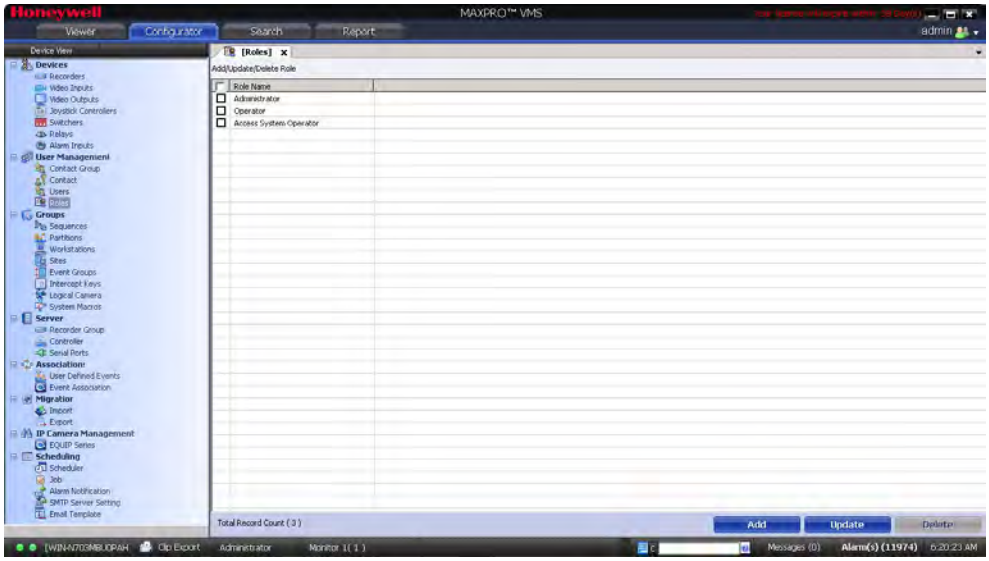

Figure 4-50 Roles

3. Click **Add**. The **General Settings** tab appears.

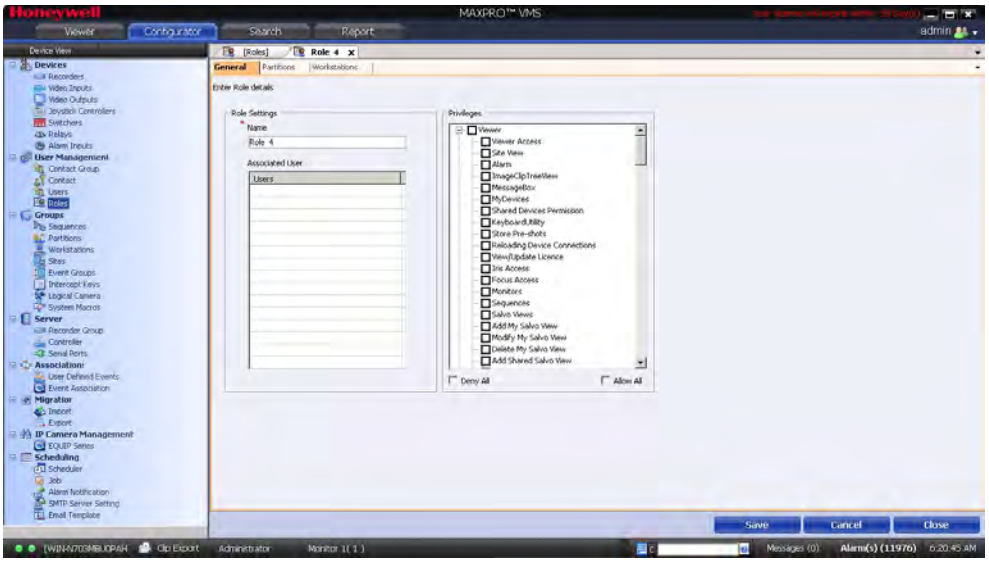

Figure 4-51 Roles General Settings

4. In the **Name** box, type a name for the role.
5. In the **Associated User** area, the user associated with the role is displayed.

Note: User is displayed only when the role is associated.

---

6. In the **Privileges** section, select the check box corresponding to the privileges for enabling them for the role. The following table lists the privileges you can enable for a user.

Privileges	Description
Viewer	
Viewer Access	To restrict access to viewer tab.
Site View	To view sites.
Alarm	To view alarms.
ImageClipTreeView	To view image clip tree.
Message Box	To view message box.
MyDevices	To view MyDevices.
Shared Devices Permission	To view and restrict shared devices.
KeyboardUtility	To access virtual keyboard.
Store Pre-shots	To store pre-shots
Reloading Device Connections	To reload the device connections.
View/Update License	To view or update license.
Iris Access	To access iris of the camera.
Focus Access	To access focus access of the camera.
Video Outputs	To view Video Outputs.
Monitors	To view/access monitors.
Sequences	To view sequences.
Salvo Views	To view salvo.
Add My Salvo View	To add my salvo view.
Modify My Salvo View	To modify my salvo view.
Delete My Salvo View	To delete my salvo view.
Add Shared Salvo View	To add shared salvo view.
Modify Shared Salvo View	To modify shared salvo view.
Delete Shared Salvo View	Delete Shared Salvo View
Add or update Surrounding Camera	To add or update surrounding camera.
Enable / Disable cameras	To allow user to enable/disable cameras.

Privileges	Description
Configure Privacy	To configure the privacy settings.
Show Calender Search	To display the calender search.
Time Line	
TimeLine Access	To allow user to access TimeLine window.
Clip Delete	To delete video clips.
Image Delete	To delete images.
Create Bookmark	To create bookmark.
View Bookmark	To view bookmark.
Delete Bookmark	To delete bookmark.
Create Loop	To allow user to create loop.
Update loop	To allow user to update loop.
Clip Creation	To allow user to create clips.
Configurator	
Configurator Access	To allow user to access configurator.
Add Switcher	To allow user to add switcher.
Update Switcher	To allow user to update switcher.
Delete Switcher	To allow user to delete switcher.
Add System Macro	To allow user to add system macro.
Update System Macro	To allow user to update system macro.
Delete System Macro	To allow user to delete system macro.
Add Logical Camera	To allow user to add logical camera.
Update Logical Camera	To allow user to update logical camera
Delete Logical Camera	To allow user to delete logical camera
Add Relay	To add relay.
Update Relay	To update relay.
Delete Relay	To delete relay.
Add Alarm Input	To add an alarm input.
Update Alarm Input	To update an alarm input.
Delete Alarm Input	To delete an alarm input.
Update Controller	To update controller.
Import	To Import files into MAXPRO VMS.
Export	To export the MAXPRO VMS files.

Privileges	Description
Configure Equip Camera	To configure equip camera.
Cold/Warm Boot	To allow user to boot.
Add Job	To add a job.
Update Job	To update a job.
Delete Job	To delete a job.
Add Contact	To add a contact.
Update Contact	To update a contact.
Delete Contact	To delete a contact.
Add Contact Group	To add a contact group.
Update Contact Group	To update a contact group.
Delete Contact Group	To delete a contact group.
Add User	To add new users.
Delete User	To allow user to delete new users.
Modify User Privilege	To modify user privilege.
Add Recorder	To allow user to add recorder.
Update Recorder	To allow user to update recorder.
Delete Recorder	To allow user to delete recorder.
Add Video Input	To allow user to add Video Input.
Update Video Input	To allow user to update video input.
Delete Video Input	To allow user to delete video input.
Add Video Output	To allow user to add video output.
Update Video Output	To allow user to update video output.
Delete Video Output	To allow user to delete video output.
Add Sequence	To allow user to add sequence.
Update Sequence	To allow user to update sequence.
Delete Sequence	To allow user to delete sequence.
Add Port	To allow user to add a port.
Update Port	To allow user to update a port.
Delete Port	To allow user to delete a port.
Add Partition	To allow user to add a partition.
Update Partition	To allow user to update a partition.
Delete Partition	To allow user to delete a partition.

Privileges	Description
Add Site	To allow user to add a site.
Update Site	To allow user to update a site.
Delete Site	To allow user to delete a site.
Add Workstation	To allow user to add a workstation.
Update Workstation	To allow user to update a workstation.
Delete Workstation	To allow user to delete a workstation.
Add Event Group	To allow user to add event group.
Update Event Group	To allow user to update event group.
Delete Event Group	To allow user to delete event group.
Add Intercept	To allow user to add intercept keys.
Update Intercept	To allow user to update joystick controller.
Delete Intercept	To allow user to delete intercept.
Add Role	To allow user to add role.
Update Role	To allow user to update role.
Delete Role	To allow user to delete role.
Search	
Search Access	To allow user to access search features.
Clip Archive	To allow user to perform clip archive.
Clip Restore	To allow user to perform clip restore.
Clip Delete	To allow user to perform to delete clip.
Reports	
Report Access	To allow user to access report features.
Controller Operator Privileges	
Display Name	To display the users name.
Multiple SignOn	To allow user to be signed on to more than one keyboard at a time.
Swap PTZ UpDown	To reverse the up/down control of a pan/tilt camera when it is being used by user.
Scan Set	To allow user to edit scan sequences.
Camera View Set	To allow user to set PTZ camera views.
UserMacro Set	To allow user to create user keyboard macros
Camera Analog PTZ	To allow user to set PTZ options for analog camera.
Standard Device	To allow user to control standard device functions.
Video Recorder	To allow user to control VCR functions.
Smart Device	To allow user to control smart device functions.

Privileges	Description
Controller Menu Access	
Video Disable	To disable live video view for a user.
ScanSequence Lock Unlock	To allow user to lock or unlock scan sequences.
VideoControl Lock Unlock	To allow user to lock or unlock video control.
VideoSource Lock Unlock	To allow user to lock or unlock videosource.
Set Clock	To allow user to set the system time and date.
SignOff	To allow user to sign off from a key board.
Change Pin	To allow user to change the PIN of all system users.
Status Information	To allow user to change the current system status.
Alarm Enable Disable	To allow system user to enable or disable system alarms.
System Configuration	To allow user to run the Windows SetMax configuration editor, save the current system environment as the default settings, or exit to Windows.
UserMacro Lock Unlock	To allow user to lock or unlock user macros.
ToolBar Buttons	
SalvoLayouts...	To allow user to add or access different salvolayouts.
Surrounding Camera	To allow user to view surrounding cameras.
Full Screen Mode	To allow user to view full screen mode.
Sync PlayBack Mode	To allow user to access the sync playback mode.
Remote Monitor Mode	To allow user to access the remote monitor mode.
Incident management Mode	To allow user to access the incident management mode.
Create Salvo	To allow user to create a salvo.
Application Launch Pad	To allow user to access the application launch pad.
Salvo Snapshot	To allow user to capture a salvo snapshot.
Instant Clip Export	to enable user to instantly export a clip.
Snapshot	To capture a snapshot.
Color Correction	Allow user to perform color correction.
Flip	Allow user to flip a video.
Mirror	Allow user to mirror view a video.
Preview	Allow user to preview a video.

Privileges	Description
Remove Text Overlay	Allow user to remove text overlay.
Analytics	
Add Analytics server	To add analytics server.
Update Analytics server	To update analytics server.
Delete Analytics server	To delete analytics server.
Launch HVA Configurator	To launch HVA configurator.
Launch HVA Live Monitor	To launch HVA Live Monitor.
Reports and Forsenics	To access the reports and forsenics.
Enable Analytics Option for Camera	To allow user to enable the analytics option for camera.

Note: To enable all the privileges select the Allow All check box and to deny all the privileges, select the **Deny All** check box.

7. Associate Partitions. See *Associating Partitions to the Roles* for more information.
8. Associate Workstations. *Associating Workstations to the Roles* for more information.
9. Click **Save**.

ASSOCIATING PARTITIONS TO THE ROLES

You can associate partitions to roles. Associating partitions to a role enables a user to perform video surveillance tasks for all the video devices that are grouped in the partition.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partition to the role

1. Click the **Configurator** tab.
2. Expand the **User Management** branch in the navigation area, and then click **Roles**. The **Roles** screen appears in the display area.
3. Double-click the role you want to associate. The **General Settings** screen appears.
4. Click the **Partitions** tab. The screen displays the associated partitions, if any.

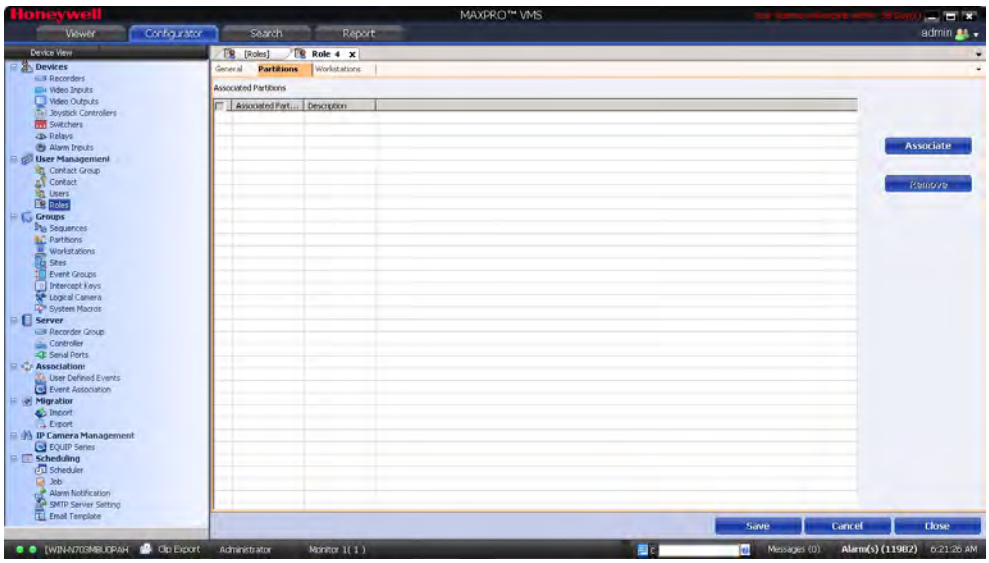

Figure 4-52 Roles Partitions

5. Click **Associate**. The **Select Partitions** dialog box appears.
6. Select the check box corresponding to the partition name you want to associate.
7. Click **OK**.

To disassociate partitions from the role

- Select the check box corresponding to the partition name, and then click **Remove**.

ASSOCIATING WORKSTATIONS TO THE ROLES

You can associate client workstations to roles to enable a user associated to the role to log on to MAXPRO VMS user interface and perform various actions.

Before you begin

- Add a Workstation. *Adding a Workstation* for more information.

To associate workstations to the role

1. Click the **Configurator** tab.
2. Expand the **User Management** branch in the navigation area, and then click **Roles**. The Roles screen appears in the display area.
3. Double-click the role you want to associate. The General Settings screen appears.
4. Click the **Workstations** tab. The screen displays the associated workstations, if any.

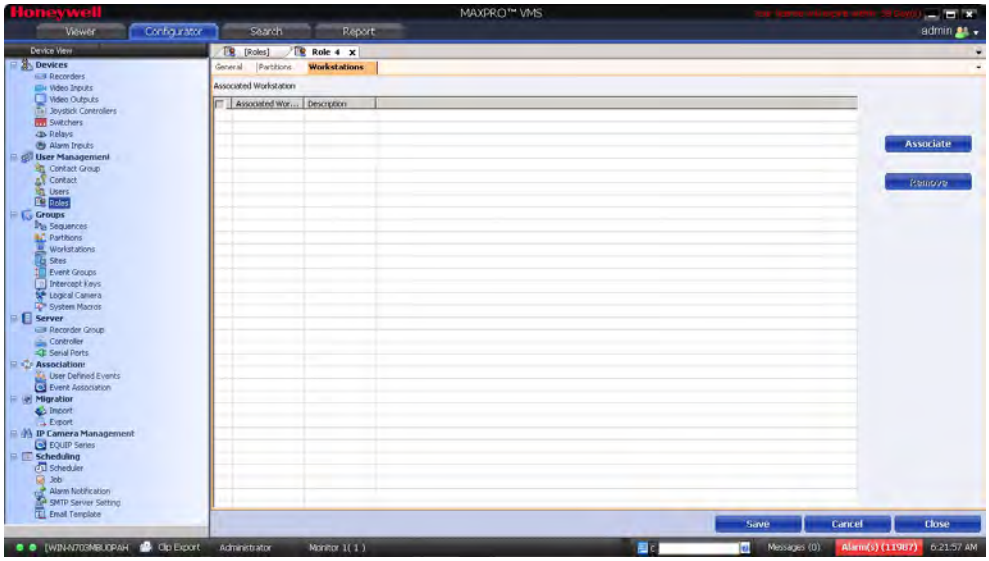

Figure 4-53 Roles Workstations

5. Click **Associate**. The **Select User Workstation** dialog box appears.
6. Select the check box corresponding to the workstation name you want to associate.
7. Click **OK**.

To disassociate workstations from the role

- Select the check box corresponding to the workstation name, and then click **Remove**.

UPDATING A ROLE

You can update the details of a role by changing the role name. In addition, you can also add or remove privileges to the role.

To update a role

1. Click the **Configurator** tab.
2. Expand the **User Management** branch in the navigation area, and then click **Roles**. The Roles screen appears in the display area.
3. Select the check box corresponding to the role you want to update.
4. Click **Update**. The general settings appear. You can modify the settings.

DELETING A ROLE

You can delete a role from MAXPRO VMS. Before you delete a role, ensure that you remove all the associations made to it.

Before you begin

- Disassociate Partitions. See *Associating Partitions to the Roles* for more information.
- Disassociate Workstations. See *Associating Workstations to the Roles* for more information.

To delete a role

1. Click the **Configurator** tab.
2. Expand the **User Management** branch in the navigation area, and then click **Roles**. The Roles screen appears in the display area.

3. Select the check box corresponding to the role you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

SEQUENCES

A sequence is a set of live video streamed one after the other from cameras for a specified time interval. You can select the cameras or presets to be included in a sequence and also specify the time interval for which the video from each camera or preset must be displayed.

Note: Presets must be defined for the cameras before including them in the sequence

CREATING A SEQUENCE

You can create a sequence to display video that is being captured from different cameras located across the sites.

To create a sequence

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Sequences**. The **Sequences** screen appears in the display area.
3. Click **Add**. The **Scan** screen appears.
4. From the **Sequence** Type drop-down list, select the required sequence type. The available sequence types are listed in the table.

Sequence Type	Description
Scan	During a Scan sequence operation, camera selection entries are wrapped around when the end of the scan sequence is reached. This mode of operation continues until the scan sequence is halted.
Tour	During a Tour sequence, the scan sequence is stepped through only once.
Index	When Index is selected for this field, it indicates that the table is used to hold information for complex macro programming.

5. In the **Description** box, type a name for the sequence.
6. Follow steps 7 through 11 if you select Scan or Tour as scan type.

If you select index type:

- In the **Sequence** Type drop-down list, select **Index**.
- Type the index value corresponding to the camera ID.
- Click **Save**.

7. In the **Dwell Time** box, type the dwell time, in seconds, for the camera to display video before advancing to next camera.
8. In the **Select Cameras** list, click . The **Select from List** dialog box appears.
9. Select the check box corresponding to the cameras that must be included in the sequence.
10. Click **OK** to close the **Select from List** dialog box. The cameras included in the sequence appear in the Select Cameras list.

11. To include presets in the sequence, type the preset number in the **Preset** column next to a camera. The video from each camera in the list is displayed sequentially.

Note: If the value is zero in the preset column, the presets are not included in the sequence. By default, presets are zero for a fixed camera.

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12. Click **Save**.

PLAYING A SEQUENCE

To play a sequence

1. Click the **Viewer** tab.
2. Click the **Sequences** window.
3. Double-click the sequence you want to play or select the sequence, and then click Play Sequence. You can drag and drop the sequence on a panel in the salvo layout.

You can also play a sequence using the joystick controller (Ultrakey keyboard). See About *Joystick Controllers* for more information.

REARRANGING THE CAMERAS IN THE SEQUENCE

You can rearrange the cameras and presets in the sequence. When you rearrange them, the sequence of live video streaming from each of the cameras is altered based on the rearrangement.

To rearrange the cameras

1. Select the check box corresponding to the camera you want to rearrange inside the sequence.
2. Click to move the camera one row up, or click to move the camera one row down.
3. Click **Save**.

REMOVING CAMERAS FROM THE SEQUENCE

You can delete a camera from a sequence, when you do not want to view the live video from it as a part of the sequence. \

To remove cameras from a sequence

1. In the **Select Cameras** list, select the check box corresponding to the cameras you want to remove.
2. Click the to remove the cameras from the sequence.
3. Click **Save**.

REMOVING PRESETS FROM THE SEQUENCE

You can remove a preset when you do not want it to be associated with a sequence.

To remove presets from a camera

1. In the **Preset** column, delete the preset number next to the camera.

2. Click **Save**.

Locking a Sequence

You can lock an existing sequence to prevent the users from modifying it.

To lock a sequence

1. Select the **Locked** check box.
2. Click **Save**.

Updating a Sequence

Updating a sequence allows you to change the sequence of video display from cameras.

To update a sequence

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Sequences**. The **Sequences** screen appears in the display area.
3. Select the check box corresponding to the sequence you want to update.
4. Click **Update**. You can change the sequence of the cameras.

Deleting a Sequence

To delete a sequence

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Sequences**. The **Sequences** screen appears in the display area.
3. Select the check box corresponding to the sequence.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

ANALYTICS

Analytics server enables smooth and effective daily surveillance operations. Analytics system is efficient in taking video inputs from live cameras, analyze the video content, and extract relevant information from the video. Automation of motion detection, triggering real-time alarms, and enabling fast search and retrieval of video are some of the distinct features of analytics.

Video Analytics takes video inputs from multiple live cameras, analyzes the video content in real-time, and extracts relevant information in the video. The system includes analytics servers, which analyze the content of the video, and various client GUI applications that can connect to the analytics servers to perform specific management or monitoring tasks. The applications can be launched directly from the server or from a separate client personal computer that can access the server through a TCP connection.

HONEYWELL VIDEO ANALYTICS (ACTIVEYE) REPORTING TOOL

The Honeywell Video Analytics (ActivEye) Reporting Tool provides statistics report generation for any of the events detected in the system, including counting data as well as surveillance events. You can configure the reporting template and also set up scheduled e-mail reporting.

The Reporting Tool has three client applications:

- Honeywell Video Analytics (ActivEye) Reports Generator
- Honeywell Video Analytics (ActivEye)Reports Health Monitor
- Honeywell Video Analytics (ActivEye) Reports Scheduler

For more details, refer to the *Video Analytics V4 Reference Guide*.

To access the guide, choose **Start>Programs>Honeywell Video Analytics>Documentation>Video Analytics V4 Reference Guide. pdf** or locate the file in installation DVD.

HONEYWELL VIDEO ANALYTICS (ACTIVEYE) ALARM MANAGEMENT

The Honeywell Video Analytics (ActivEye) Alarm Management component allows you to monitor the real-time alarms at a central station from multiple Video Analytics Servers. There are three components that enable the alarm management functionality:

- Honeywell Video Analytics (ActivEye) Alarm Watch Admin
- Honeywell Video Analytics (ActivEye) Alarm Watch Manager
- Honeywell Video Analytics (ActivEye) Alarm Watch Station

For more details, refer to the *Video Analytics V4 Reference Guide*.

To access the guide, choose **Start>Programs>Honeywell Video Analytics>Documentation>Video Analytics V4 Reference Guide.pdf** or locate the file in installation DVD.

HONEYWELL VIDEO ANALYTICS (ACTIVEYE) CONFIGURATION TOOL

Honeywell Video Analytics (ActivEye) configuration tool allows you to configure the rules in each camera view for your daily surveillance or operational needs.

For more details, refer to the Video Analytics V4 Reference Guide.

To access the guide, choose **Start>Programs>Honeywell Video Analytics>Documentation>Video Analytics V4 Reference Guide.pdf** or locate the file in installation DVD.

HONEYWELL VIDEO ANALYTICS (ACTIVEYE) FORENSICS TOOL

Honeywell Video Analytics (ActivEye) Forensics tool allows remote users to connect to the Video Analytics database on the server to conduct search and retrieval of past incidents.

For more details, refer to the Video Analytics V4 Reference Guide.

To access the guide, choose **Start>Programs>Honeywell Video Analytics>Documentation>Video Analytics V4 Reference Guide.pdf** or locate the file in installation DVD.

HONEYWELL VIDEO ANALYTICS (ACTIVEYE) LIVE MONITORING STATION

Honeywell Video Analytics (ActivEye) Live Monitoring Station allows remote users to receive live video streams with analytics annotations as well as real-time events and alarms across multiple Analytics Servers.

For more details, refer to the Video Analytics V4 Reference Guide.

To access the guide, choose **Start>Programs>Honeywell Video Analytics>Documentation>Video Analytics V4 Reference Guide.pdf** or locate the file in installation DVD.

HONEYWELL VIDEO ANALYTICS (ACTIVEYE) USER CONFIGURATION

Honeywell Video Analytics (ActivEye) User Configuration allows managing user accounts.All the client applications require a valid user account to log on to the server and perform various tasks

For more details, refer to the Video Analytics V4 Reference Guide.

To access the guide, choose **Start>Programs>Honeywell Video Analytics>Documentation>Video Analytics V4 Reference Guide.pdf** or locate the file in installation DVD.

ADDING AN ANALYTICS SERVER

To add and analytics server

1. Click the **Configurator** tab.
2. Expand the **Servers** branch in the navigation area, and then click **Analytics**. The **Analytics Servers** screen appears in the display area.

3. Click **Add**. The general settings screen appears.

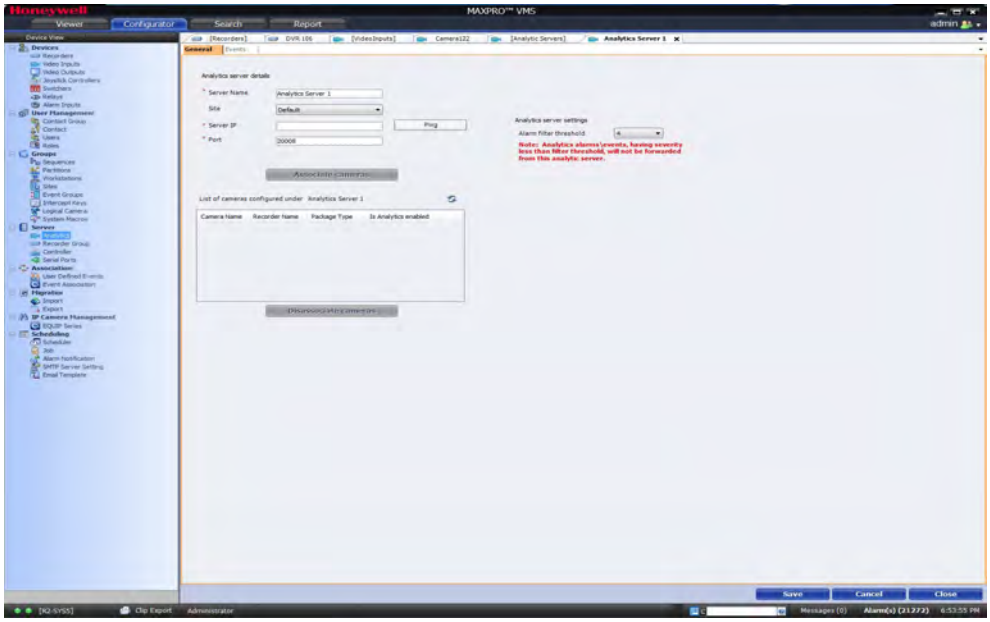

Figure 4-54 Analytics Server

4. In the **Server Name** box, type a name for the server.
5. From the **Site** drop-down list, select the required site.
6. In the **Server IP** box, type the IP address of the server where the analytics is installed. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid.
7. In the **Port** box, type the port number to connect the server.
8. Click **Save**.

To associate cameras to analytics

1. Click **Associate Cameras**. The **Select camera** list dialog box appears.
2. Select the cameras that have to be associated to analytics.
3. From the Analytics package settings for the selected cameras drop-down list, select the required package, and then click Set analytics package type.

Note: The license information of each Honeywell Video Analytics (HVA) package is explained under the License Information section.

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4. Click **Associate**.
5. Click **Cancel** to exit. The cameras are associated and displayed in the Analytical Server page.
6. Associate Events and Events Attributes. See *Associating Events and Event Attributes to Analytics* for more information.

To disassociate cameras from analytics

1. In the **List of Cameras configured under** section, select the camera that you want to disassociate.
2. Click **Disassociate Cameras**.

Setting alarm filter threshold

1. From the **Alarm filter threshold** drop-down list, select a severity level for the alarm threshold.

Note: This severity level is applicable only for Analytics alarms. If “alarm threshold value” is 4, then the events with severity level less than 4 are not stored in the Trinity database. However, you can view these events using the ActiveEye tool.

ASSOCIATING EVENTS AND EVENT ATTRIBUTES TO ANALYTICS

You can associate one or more events to a analytics server. An alarm is triggered whenever any of the associated event occurs for the analytics server. For certain events, you can also associate event attributes. For example, for an Encoder Disabled event, you can associate attributes such as Encoder Name, Encoder ID and so on. For every attribute that you associate, you can set a value based on which the event is triggered. In the above example, you can associate the attribute Encoder Name to the event and set its value as Encoder A. When this event is associated to the video input, an alarm is raised when the event “Encoder Disabled” occurs for the Encoder Name “Encoder A”.

Attributes are available only for certain events. These events can be associated to a analytics multiple times. The event attributes are listed in the details of the alarm in Alarm window. To view the event attributes of an alarm, right-click the alarm, and then click Show Details.

To associate events to a analytics

1. Click the **Events** tab. The screen displays the associated events if any.
2. Click **Associate**. The **Select Available Events** dialog box appears.
3. Select the check box corresponding to the event you want to associate.
4. Click **OK**.

To disassociate events from a analytics

- Select the check box corresponding to the event, and then click Remove.

To add Event Groups to events

1. Select the check box corresponding to the event you want to add the Event Group.
2. Double-click on the **Event Group** box. **Select Event Groups** dialog box appears.
3. Click the check box corresponding to the **Event Group** you want to add.
4. Click **OK**.

To disassociate events from a analytics

- Select the check box corresponding to the event, and then click Remove.

Note: You need to add an event group before you associate it to an event. See *Adding an Event Group* for more information.

To disable an event

1. Select the check box corresponding to the event you want to disable.
2. Click the **Disabled** box. A drop-down list is enabled.

3. Select True.

To assign severity level

1. Select the check box corresponding to the event you want assign severity level.
2. Double-click on the **Severity Level** box and edit the severity level.

Note: Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

To enter remarks

1. Select the check box corresponding to the event you want to enter remarks.
2. Click the **Remarks** box and type the remarks.

To assign macros

1. Select the check box corresponding to the event you want to assign macros.
2. Click the **Start Procedure** box, and then type the required macro.
3. Click the **End Procedure** box, and then type the required macro.

ASSOCIATING EVENT ATTRIBUTES

Before you begin

- Associate events.

To associate event attributes

1. Select the check box corresponding to the event for which you want to associate event attributes. The **Event attributes Settings** appear in the lower pane.
2. Click **Associate**. The **Select Available Event Attributes** dialog box appears.
3. Select the check box corresponding to the event attributes that you want to associate.
4. Click **OK**.

To disassociate event attributes from a analytics

- Select the check box corresponding to the event attribute, and then click **Remove**.

The following table describes the event name, event attributes, and their description

Event Name	Event Attributes	Attribute Description
Analytics server CPU is overloaded	CPU usage in percentage	CPU usage in percentage
Low disk space in analytics server	Free disk space in MB	Available free disk space in MB
Analytics server disk reaching minimum disk space	Free disk space in MB	Available free disk space in MB
Analytics server disk is healthy	Free disk space in MB	Available free disk space in MB

PARTITIONS

A partition is a logical grouping of recorders, video inputs, switchers, and video outputs across various sites. Partitions are created for granting specific access rights to the users of MAXPRO VMS.

You can add a new partition by specifying a unique ID and a description. After adding a partition, you can add video devices to it.

You can also delete a partition when it is no longer needed. Before deleting a partition, disassociate the video devices from it and also unassign it from the user.

DEFAULT PARTITION

A default partition is automatically created in MAXPRO VMS and all the newly added video devices are associated to it. Since, all the new devices are a part of the default partition, all users logging on to MAXPRO VMS can view them.

PARTITIONS AND USERS

Partitions are associated to the users. They can view and manage the video devices that are grouped inside the associated partitions.

PARTITIONS AND ROLES

Partitions are associated to roles. Roles are assigned to users. A user can view and manage the video devices that are grouped inside the associated partitions.

PARTITIONS AND VIDEO DEVICES

Partitions are associated to devices like cameras, recorders, switchers and monitors. Users associated to a partition can view and manage all the devices grouped inside it.

PARTITIONS AND MONITORS

Partitions are associated to monitors. Users associated to a partition can perform surveillance operations through monitors associated in that group.

ADDING A PARTITION

You can add a partition by specifying a unique identification number and a description.

Note: By default, a global partition is added in MAXPRO VMS and all video devices are associated to it.

To add a partition

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Partitions**. The **Partitions** screen appears in the display area.

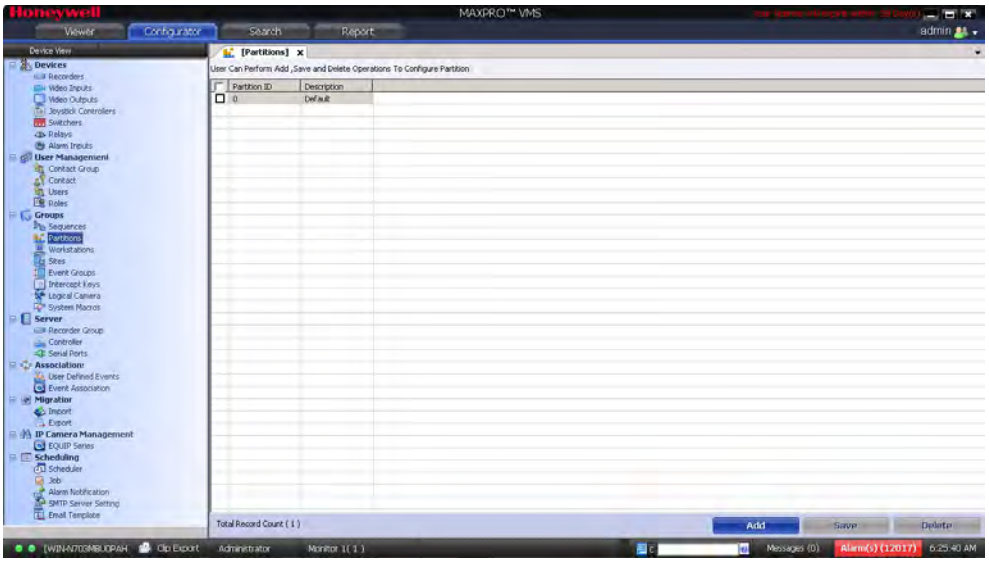

Figure 4-55 Partitions

3. Click **Add**. By default, the **Partition ID** and **Description** are displayed.

Note: You can change the default **Partition ID** and **Description**.

4. Click **Save**.

DELETING A PARTITION

You can delete a partition when you no longer need it. Before deleting a partition, ensure that you disassociate all video devices and unassign the user.

Before you begin

Disassociate all the devices, relays, users, and roles associated to the partition.

To delete a partition

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Partitions**. The **Partitions** screen appears in the display area.
3. Select the check box corresponding to the partition you want to remove.
4. Click **Delete**. A confirmation message appears on the top of the display area.
5. Click **Yes**.

WORKSTATIONS

A client workstation is a computer in which the MAXPRO VMS user interface is installed. A user can log on to MAXPRO VMS interface through workstations and perform various operations.

WORKSTATIONS AND USERS

Users are directly associated to the workstation which is associated to the role. A user can be associated to other workstations which are not associated to a role.

See *Associating Workstations to the Users* for more information.

WORKSTATIONS AND ROLES

Workstations are associated to Roles. Roles are assigned to users which enables them to log on to MAXPRO VMS interface and perform various actions.

See *Associating Workstations to the Roles* for more information.

ADDING A WORKSTATION

A user can log on to MAXPRO VMS user interface through client workstation. Workstation name is the computer name of the client computer.

To add a workstation

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Workstations**. The **Workstations** screen appears in the display area.

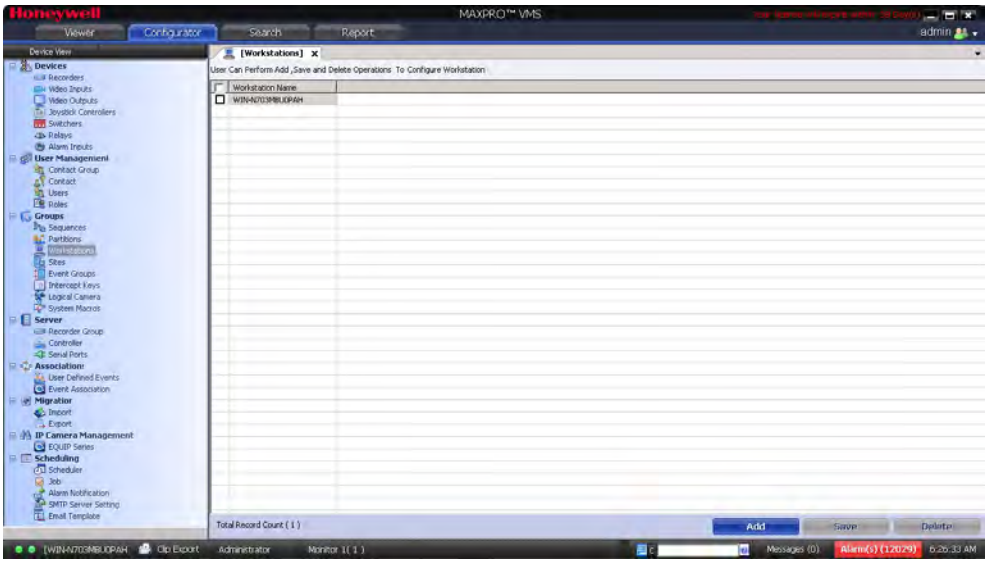

Figure 4-56 Workstations

3. Click **Add**. A new workstation gets added to the list.
4. Rename the workstation name if necessary.
5. Click **Save**.

DELETING A WORKSTATION

You can delete a workstation. When you delete a workstation, all the associations made to the workstation are also removed.

To delete a workstation

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Workstations**. The **Workstations** screen appears in the display area.
3. Select the check box corresponding to the workstation you want to remove.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

SITE

Site is a location where video input devices are situated. You can define more than one site in MAXPRO VMS. A default site is automatically created in MAXPRO VMS and all the video input devices can be associated to it.

ADDING A SITE

You can add a site to associate video inputs, recorders, switchers, video outputs, and workstations.

To add a site

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Sites**. The **Sites** screen appears in the display area.

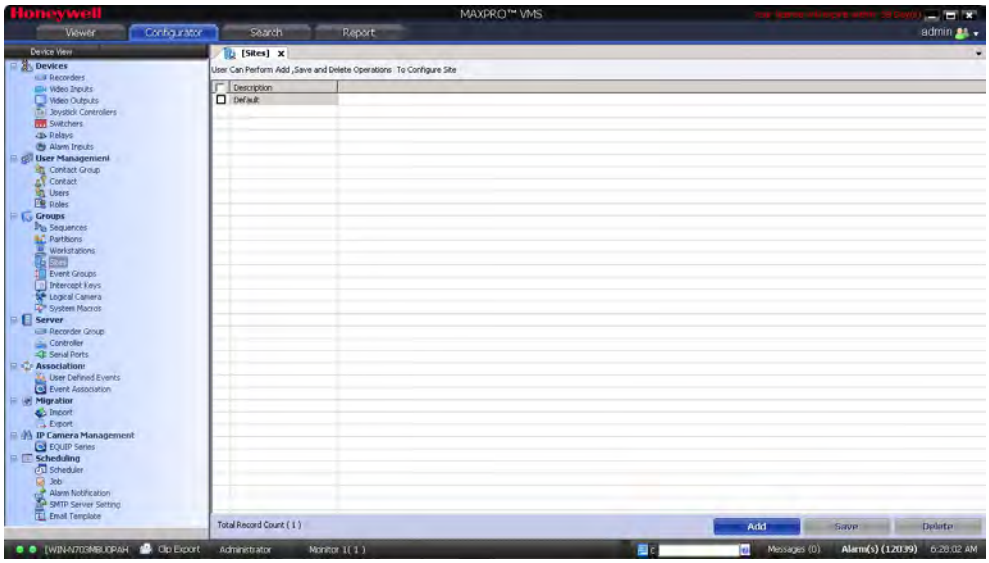

Figure 4-57 Sites

3. Click **Add**.
4. A new site gets added to the list. You can rename the site name if necessary.
5. Click **Save**.

DELETING A SITE

Before you begin

- Disassociate all the associations to the site.

To delete a site

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Sites**. The **Sites** screen appears in the display area.
3. Select the check box corresponding to the site you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

EVENT GROUP

An event group is a grouping of events that occur on devices. The events that can occur vary based on the type of video devices.

For example, if a video connected to a recorder is lost, an event 'video loss' is generated. In MAXPRO VMS, an alarm is triggered whenever an event occurs.

Event groups are created for providing privileges to the users for viewing or acknowledging the events that occur on the video devices. By default, 99 Event Groups are added in MAXPRO VMS. Events that occur on the devices are grouped under different Event Groups. By default, all the events that can occur on devices are associated to Event Group 1.

EVENT GROUPS AND USERS

Event groups are associated to users. When any events in the event group occur, only the associated users can acknowledge it. See *Associating Event Groups to Users* for more information.

EVENT GROUPS AND MONITORS

Event groups are associated to monitors. When any event in the event group occurs, the event details are displayed in the associated monitors for viewing. See *Associating Video Outputs to Event Groups* for more information.

ADDING AN EVENT GROUP

You can add an event group to provide privileges for a user to acknowledge the events that occur on video devices.

To add an event group

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Event Groups**. The **Event Groups** screen appears in the display area.
3. Click **Add**.
4. In the **Event Group ID** and **Description** column, a default reference number and a description for the event group appear by default.
5. Click **Save**.

DELETING AN EVENT GROUP

You can delete an event group from MAXPRO VMS. Before deleting an event group, ensure that you disassociate the users and monitors from it.

Before you begin

- Disassociate Video Outputs. *Associating Events and Event Attributes to a Video Input* for more information.
- Disassociate Users. See *Associating Event Groups to Users* for more information.

To delete an event group

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Event Groups**. The **Event Groups** screen appears in the display area.
3. Select the check box corresponding to the event group you want to remove.
4. Click **Delete**. A confirmation message appears on the top of the display area.

5. Click **Yes**.

INTERCEPT KEYS

Frequently used or repetitive sequence of keystrokes can be automated using intercept keys.

INTERCEPT KEYS AND JOYSTICK CONTROLLERS

Joystick controllers (Ultrakey keyboards) are associated to intercept keys. You can program the keys in the Ultrakey keyboard to perform an action by associating intercept keys to them. For example, a key can be programmed to select a panel in the salvo layout.

ADDING INTERCEPT KEY

To add an intercept key

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Intercept** Keys. The **Intercept Keys** screen appears in the display area.
3. Click **Add**. The **General Settings** screen for Intercept Keys displays.

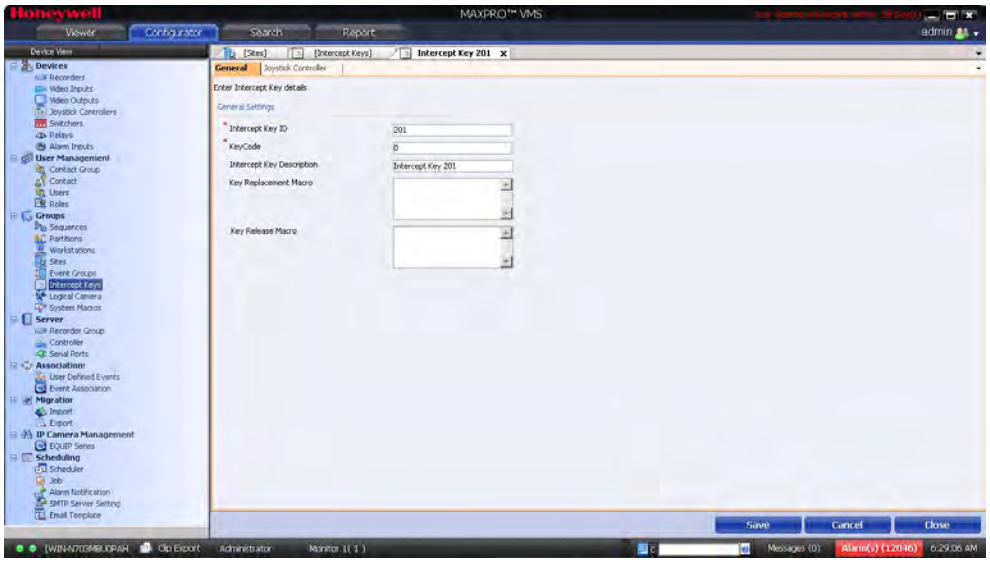

Figure 4-58 Intercept Keys- General Settings

4. In the **Intercept Key ID** box, next available number is assigned by default.
5. In the **Key Code** box, type the key code of the key that is to be intercepted.
6. In the **Intercept Key Description** box, type a description for the intercept key for reference, if required.

Note: A default sequential Intercept Key name appears in the **Intercept Key Description** box.

---

7. In the **Key Replacement Macro** box, type the desired key replacement macro.

Note: When the specified key press on the selected keyboards is detected, the Key Replacement Macro is executed.

8. In the **Key Release Macro** box, type the desired key release macro.

Note: When the specified key on the selected keyboards is detected, the Key Release Macro is executed.

9. Associate Joystick Controller. See *Associating Joystick Controllers to Intercept Keys* for more information.
10. Click **Save**.

To restore default intercept keys

- Click **Restore**.

ASSOCIATING JOYSTICK CONTROLLERS TO INTERCEPT KEYS

To associate joystick controller to intercept keys

1. Click the **Joystick Controller** tab. The **Joystick Controller** screen appears.
2. Click **Associate**. The **Select Joystick Controllers** dialog box appears.
3. Select the check box corresponding to the joystick name you want to associate.
4. Click **OK**.

Note: By default, 99 joystick controllers are available in MAXPRO VMS.

To disassociate joystick controller from intercept keys

- Select the check box corresponding to the joystick name, and then click **Remove**.

UPDATING INTERCEPT KEYS

You can update intercept keys to change the key press number and change the description.

To update intercept keys

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Intercept** Keys. The **Intercept Keys** screen appears in the display area.
3. Select the check box corresponding to the intercept key you want to update.
4. Click **Update**. The general settings for the intercept key appear. You can modify the settings according to your needs.

DELETING INTERCEPT KEYS

To delete intercept keys

1. Click the **Configurator** tab.

2. Expand **Groups** in the navigation area, and then click **Intercept** Keys. The **Intercept Keys** screen appears in the display area.
3. Select the check box corresponding to the intercept key you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

LOGICAL CAMERA

Logical camera selection allows cameras to be grouped together so that selection of a particular camera is made more easy for the user. Instead of selecting the camera by its number, the user can select the group the camera belongs to, followed by a number within that group. For example, Camera 1234 can instead be selected as ‘Level 1 Cameras’, ‘5’, with the name of the group (in this case Level 1 Cameras) being selected by a single button press. This speeds up and simplifies the selection of video inputs.

You can add a logical camera and associate it to the Joystick Controller.

Before you begin

- Add Camera. See *Adding a Camera* for more information.
- Configure Joystick Controller. *Configuring joystick controller* for more information.

ADDING A LOGICAL CAMERA

To add a logical camera

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Logical Camera**. The **Logical Camera** screen appears in the display area.
3. Click **Add**. The **Group** screen for Logical Camera displays.

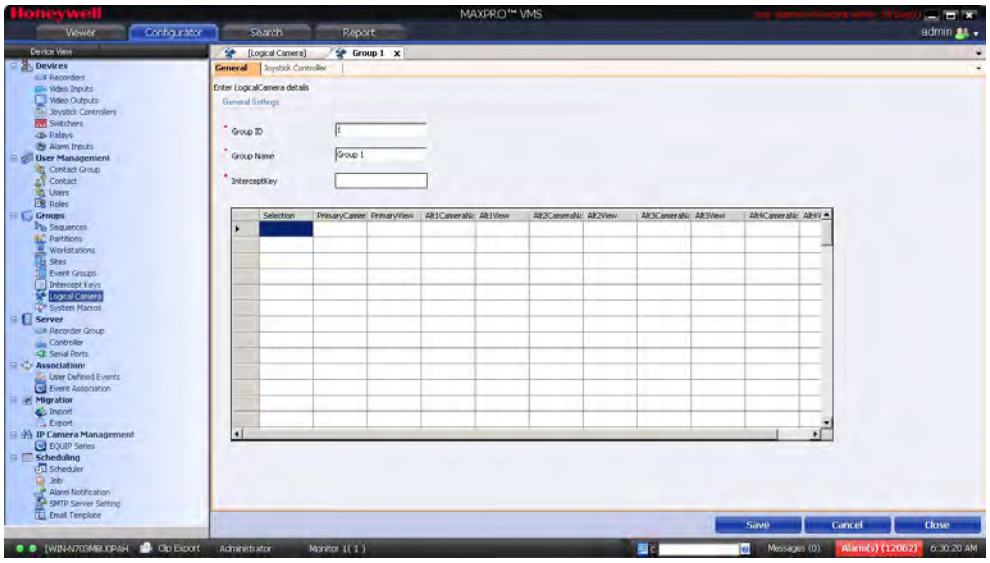

Figure 4-59 Logical Camera- General Settings

4. In the **Group ID** box, type the unique ID.
5. In the **Group Name** box, type a name for the logical group.
6. In the **Intercept Key** box, type a kicked number to select the group.

Note: Typing a number in the Intercept Key field automatically updates the Intercept Keyboard Keys table.

7. Specify the following details in the table.

Features	Description
Selection Number	Type a unique number within each group. It defines the number entered by the operator to select the Primary Camera in the group. There can be up to 99 different selection numbers per group. Valid values are 1 – 9999.
Primary Camera	Specify camera number that is selected when the operator selects a Group and a selection number within that group. Valid values are 1 – 9999, and must correspond to a camera number defined in the Video Inputs table.
Primary Camera View	The primary camera can also be a PTZ camera with view recall capability. In this case an actual View number can be specified. Therefore, selecting the group and selection number within that group not only displays the primary camera but also automatically moves it to the designated **View** preset position. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected. **Note:** As the view number '0' is used for indicating that NO VIEW is specified, view '0' can NOT be recalled by this field.
Alternate Camera 1	This field defines the first alternate camera to be selected when the 'ALT' key is pressed. This camera is also selected by pressing the ? key on the keyboard after the primary camera has been selected, or the ? key after the Alternate Camera 2 has been selected. The range of valid camera numbers is 1 – 9999. The alternate camera 1 would have to be defined elsewhere in the video input table. A value of 0 is the default value and indicates no alternate camera is defined.
Alternate Camera View	When Alternate Camera 1 is selected, it can automatically move to the designated View preset position. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected. **Note:** As the view number '0' is used for indicating that NO VIEW is specified, view '0' can NOT be recalled by this field.
Alternate Camera 2	Define the second alternate camera to be selected when the 'ALT' key is pressed again after selecting alternate camera 1. The range of valid camera numbers is 1 – 9999. The alternate camera 2 must be defined elsewhere in the video input table. A value of 0 is the default value and indicates no alternate camera is defined.
Alternate View	When Alternate Camera 2 is selected, it can automatically move to the designated View preset position. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected. **Note:** As the view number '0' is used for indicating that NO VIEW is specified, view '0' can NOT be recalled by this field.
Alternate Camera 3	Define the third alternate camera to be selected when the 'ALT' key is pressed again after selecting alternate camera 2. The range of valid camera numbers is 1 – 9999. The alternate camera 3 has to be defined elsewhere in the video input table. A value of 0 is the default value and indicates no alternate camera is defined.

Features	Description
Alternate View	When Alternate Camera 3 is selected, it can automatically move to the designated View preset position. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected. **Note:** As the view number '0' is used for indicating that NO VIEW is specified, view '0' cannot be recalled by this field.
Alternate Camera 4	This field defines the fourth alternate camera to be selected when the 'ALT' key is pressed again after selecting alternate camera 3. The range of valid camera numbers is 1 – 9999. The alternate camera 4 would have to be defined elsewhere in the video input table. A value of 0 is the default value and indicates no alternate camera is defined.
Alternate View	When Alternate Camera 4 is selected it can automatically move to the designated VIEW preset position. The valid camera views range is 1 – 99, 0 is the default value which indicates no camera view is to be selected. **Note:** As the view number '0' is used for indicating that NO VIEW is specified, view '0' cannot be recalled by this field.

Note: Pressing the **ALT** key continuously on the keyboard cycles around the Primary camera and Alternate cameras defined in the group. Using the upper arrow and lower arrow keys selects the next or previous camera in the group until the last defined camera has been selected. Then an “End of Sequence” message is displayed on the user’s monitor.

8. Associate Joystick Controller. See *Associating Joystick Controllers to Logical Camera* for more information.
9. Click **Save**.

ASSOCIATING JOYSTICK CONTROLLERS TO LOGICAL CAMERA

To associate joystick controller to logical camera

1. Click the **Joystick Controller** tab. The **Joystick Controller** screen appears.
2. Click **Associate**. The **Select Joystick Controllers** dialog box appears.
3. Select the check box corresponding to the joystick name you want to associate.
4. Click **OK**.

Note: By default, 99 joystick controllers are available in MAXPRO VMS.

To disassociate joystick controller from logical camera

- Select the check box corresponding to the joystick name, and then click **Remove**.

DELETING A LOGICAL CAMERA

To delete logical camera

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Logical Camera**. The **Group** screen appears in the display area.
3. Select the check box corresponding to the logical camera that you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes**.

UPDATING LOGICAL CAMERAS

You can update logical cameras to change the group name or the alternative camera.

To update logical cameras

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **Logical Camera**. The **Group** screen appears in the display area.
3. Select the check box corresponding to the logical camera you want to update.
4. Click **Update**. The general settings for the logical camera appear. You can modify the settings according to your needs.

SYSTEM MACROS

A macro is a rule or pattern that specifies how a certain input sequence (often a sequence of characters) is mapped to an output sequence or action.

ADDING A SYSTEM MACRO

You can add a macro to enter a single character or a word to perform a series of actions.

To add a system macro

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **System Macros**. The **System Macros** screen appears in the display area.

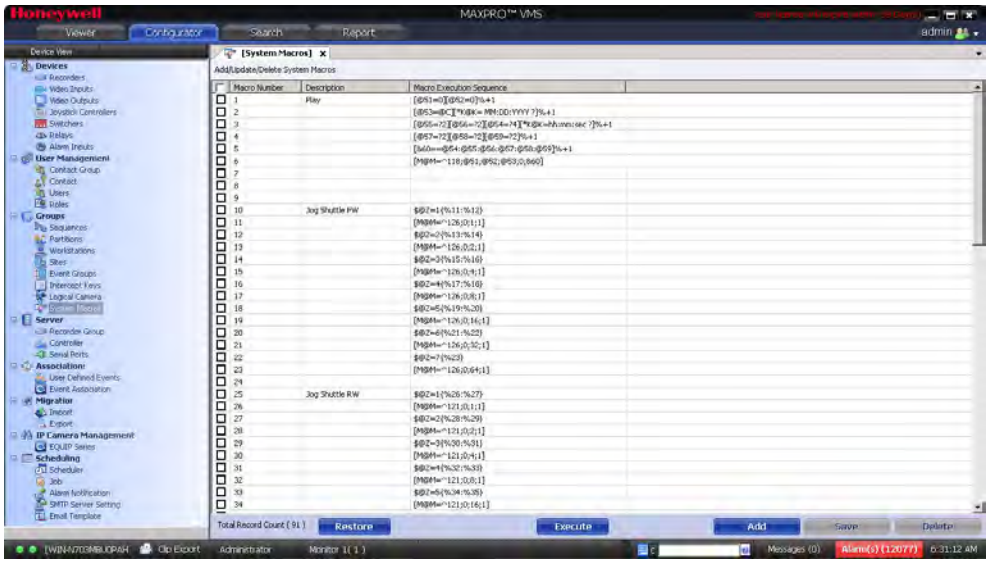

Figure 4-60 System Macros

3. Click **Add**. A **System Macro** is added.
4. In the **Description column**, type a description for the system macro for reference.
5. In the **Macro Execution Sequence** column, type the key press sequence or special command to perform the required function.

EXECUTING A SYSTEM MACRO

MAXPRO VMS provides a feature to execute a system macro as and when it is created.

To execute a system macro

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **System Macros**. The **System Macros** screen appears in the display area.
3. Select the check box corresponding to the system macros you want to execute. The desired macro is executed.

Note: Click **Restore**, to restore all the system macros to their factory default settings. The following message appears"**All macros will be reset to factory default. All your modifications will be removed. Do you want to Proceed"?**. Click **Yes** or **No** as applicable.

DELETING A SYSTEM MACRO

To delete a system macro

1. Click the **Configurator** tab.
2. Expand **Groups** in the navigation area, and then click **System Macros**. The **System Macros** screen appears in the display area.
3. Select the check box corresponding to the system macros you want to delete.
4. Click **Delete**. A confirmation message appears on top of the display area.
5. Click **Yes** to remove the system macro.

RECORDER GROUPS

Recorder group feature distributes the load on a controller. It allows you to create different groups and associate recorders to it. Associating recorders to the groups enables, the load is distributed among the recorder controllers. You can add, update and delete recorders in a specific group. Based on the load you can create maximum number of groups and associate recorder to each group. By default five groups are displayed.

ASSOCIATING RECORDER TO RECORDER GROUPS

To associate recorder to recorder groups

1. Click the **Configurator** tab.
2. Expand the **Servers** branch in the navigation area, and then click **Recorder Group**. The **Recorder Group** screen appears in the display area with default recorder groups.

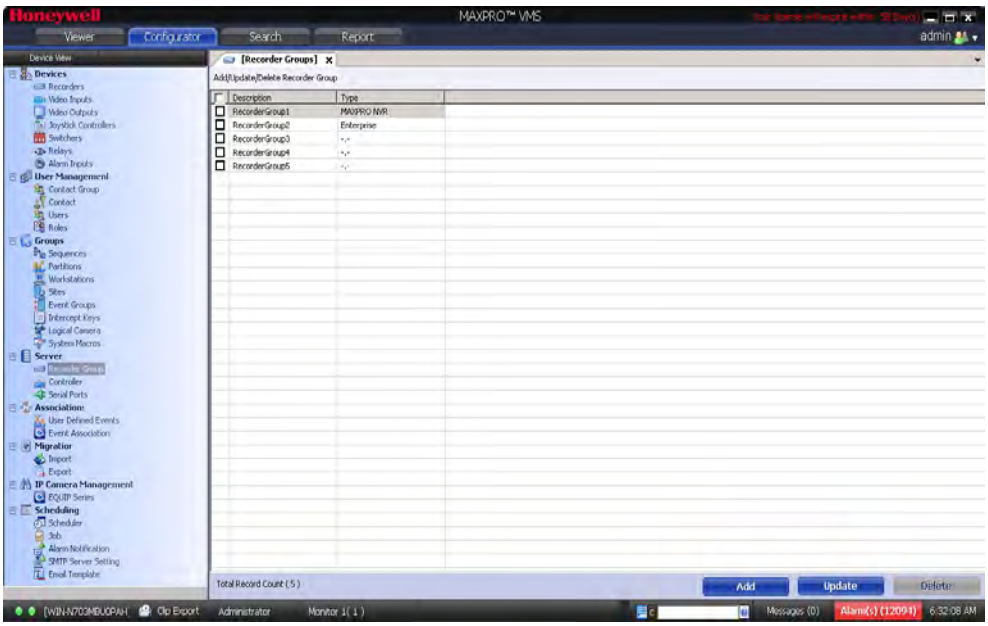

Figure 4-61 Recorder Group Screen

3. Click **Add**. The **General** settings screen for Recorder Group displays.

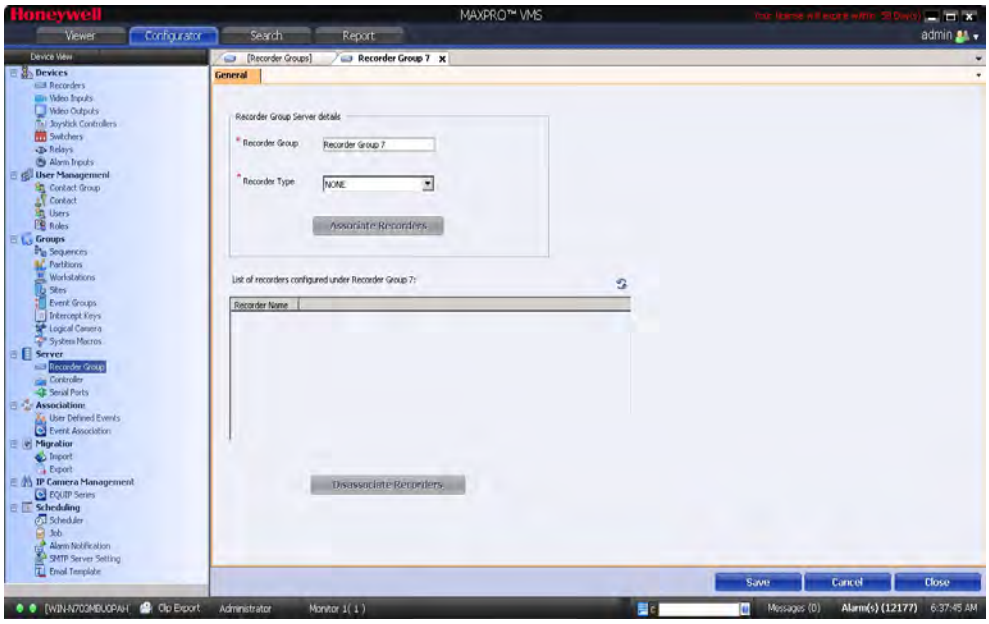

Figure 4-62 Recorder Group- General Settings

4. In the **Recorder Group** box, type a name for the recorder group.
5. In the **Recorder Type** drop-down list, select the recorder that you want to associate.
6. Click **Save**. The **Associate Recorders** and **Disassociate Recorders** buttons are activated.
7. Click **Associate Recorders**. The **Select from list to Associate Recorder Group Server** dialog box appears.

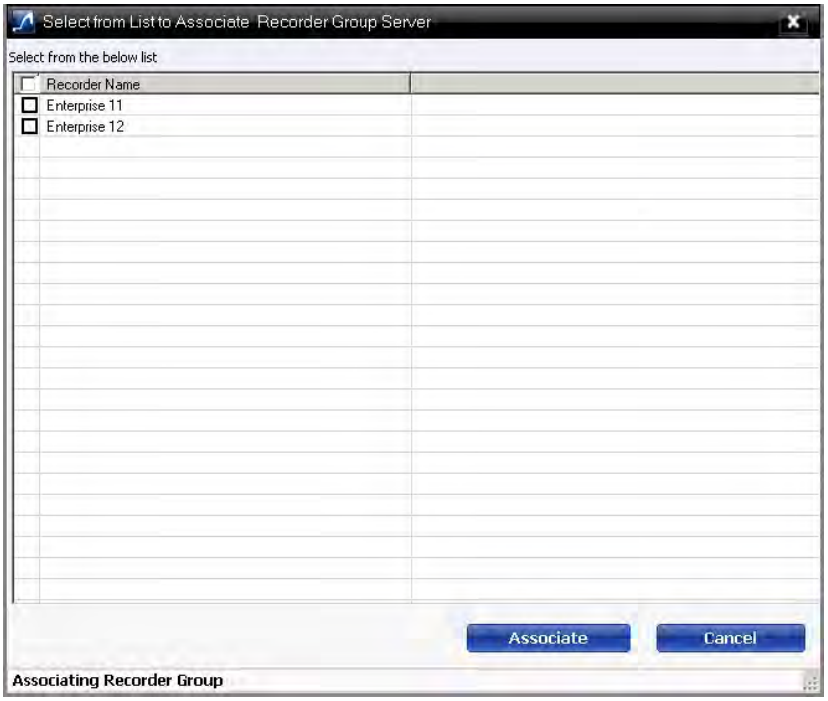

Figure 4-63 Select from list - Associate

8. Select the required **Recorder Group Server** from the list and then click **Associate**. The list of recorders associated in a specific group is displayed under **List of Recorders configured under Recorder Group**.

DISASSOCIATING RECORDERS FROM THE RECORDER GROUPS

To dissociate recorders from the Recorder Groups

1. In the **List of Recorders configured under Recorder Group**, click **Disassociate Recorder**. The **Select from list to dissociate Recorder** dialog box appears.

Figure 4-64 Select from list - Disassociate

2. Select the **Recorder** from the list and then click **Disassociate**. **The selected recorders are successfully disassociated from the Recorder Group** message is displayed.

UPDATING RECORDER GROUP

To update a recorder group

1. In the **Recorder Groups** screen, select the required Recorder Group check boxes.
2. Click **Update**. The **General** settings screen for Recorder Group displays.
   Or
   Double-click the required recorder group from the list. The **General** settings screen for specific Recorder Group displays.

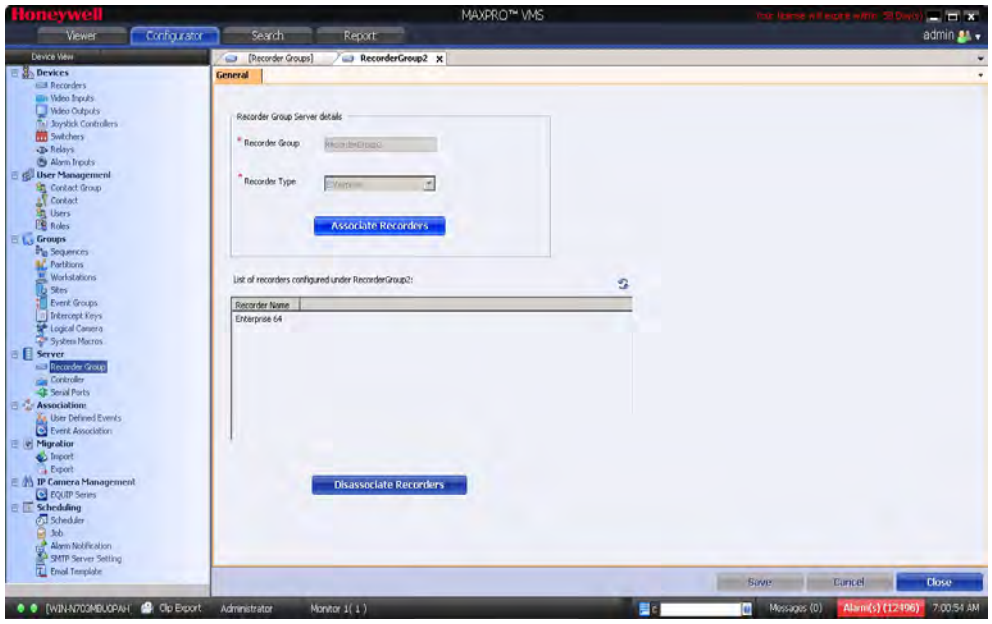

Figure 4-65 Update Recorder Group

3. Repeat the steps 7 and step 8 of *Associating recorder to Recorder Groups* to associate recorder.
4. Repeat the steps of *Disassociating Recorders from the Recorder Groups* to disassociate recorders.
5. Click **Close**.

DELETING RECORDER GROUP

To delete the recorder groups you need to first disassociate the recorders under that group. See *Disassociating Recorders from the Recorder Groups*.

Note: Deleting recorder group deletes the recorder service but the load is carried over to the actual controller service.

To delete a recorder group

1. In the **Recorder Groups** screen, select the required Recorder Group check boxes.
2. Click **Delete**. A confirmation message **Do you really want to delete selected recorder group** is displayed.
3. Click **Yes** to delete.

TRINITY CONTROLLER

Trinity controller is a service which enables the system to fetch alarm status. It allows you perform PTZ operations and execute the macros. You can edit the special system parameters of the trinity controller. These fields default to values that are satisfactory for most video system applications.

To update the trinity controller

1. Click the **Configurator** tab.
2. Expand the **Servers** branch in the navigation area, and then click **Controller**. The **Controller** screen appears in the display area.
3. Click **Update**. The **Trinity Controller** screen appears.

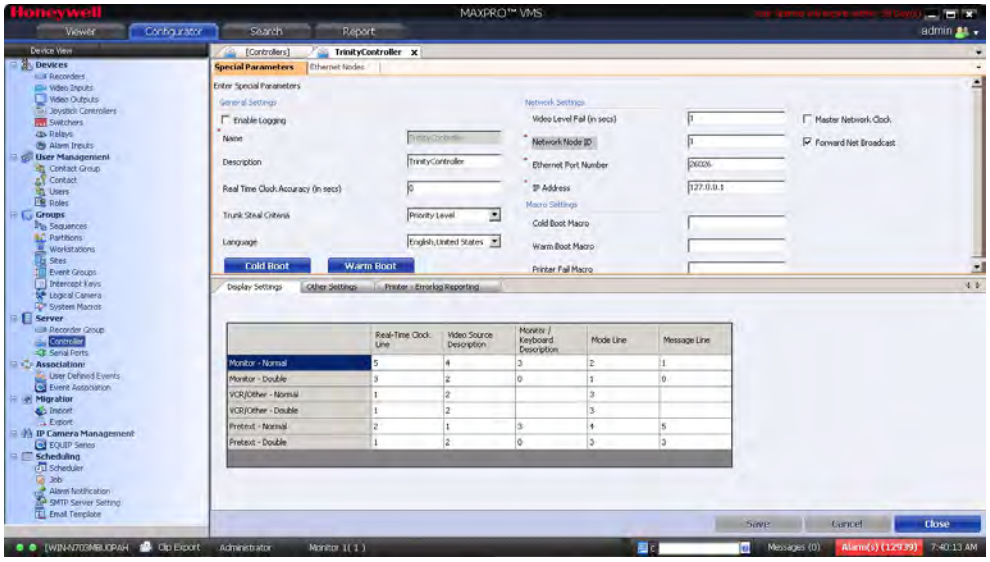

Figure 4-66 Trinity Controller

4. Specify the following settings.

- **General Settings**

Settings	Instructions/Description
Name	By default, the name of the server, in this case trinity controller appears.
Description	Type a description for the controller.
Real Time Clock Accuracy (in seconds)	Type a value to correct the drift in the real-time clock. After the system is installed and is operational, the number of seconds gained or lost should be measured over a 24-hour period. Type the number of seconds lost or gained in this field. The correction factor is entered using “+” for gained time, and “–“ for lost time.

Settings	Instructions/Description
Trunk Steal Criteria	From the drop-down list, select a priority. • **Priority Level** – A user can steal a trunk from another user with a lower priority. • **On Alarm Only** – A trunk can be stolen if an alarm condition causes a system macro to make a video selection. A user cannot steal from another, regardless of priority. • **Never Steal** – Trunks are assigned on a first come first serve basis, regardless of user priorities. Video trunk lines are used for carrying video signals from one system to another. These trunk lines are managed automatically by the MAXPRO VMS to service the video selection demands of the users. It is possible to run out of video trunk lines and the Trunk Steal Criteria allows the selection of the action that occurs under this congestion condition.
Language	From the drop-down list, select the required language.

- **Network Settings**

Settings	Instructions/Description
Video Level Fail (in seconds)	Type a value to set the detection period time that elapses before a video level failure is reported. Valid values are 0 (immediate) to 30 seconds. **Note:** A video sync loss is detected immediately and is not effected by the value in the video level fail field.
Network Node ID	Type a unique network node ID. Valid network node numbers are 1 – 99. For a single system this value should be zero (0). **Note:** The “Network node ID” is not live updated to the server.
Ethernet Port Number	Type the port number that are used by the clients to connect to the server over the Ethernet. The default port number is 26026. The “Ethernet Port Number” is not live updated to the server.
IP Address	Type the IP Address of the server of the Server to which the controller needs to be connected.

- **Macro Settings**

Settings	Instructions/Description
Cold Boot Macro	Type the desired macro. When the MAXPRO VMS Server is powered up or reset, the Cold Boot macro sequence is executed following all the normal system and equipment initialization. **Note:** Cold Boot can be initiated from MAXPRO VMS (Cold Boot button in the Trinity Controller page).
Warm Boot Macro	Type the desired macro. When the MAXPRO VMS Server receives a reset command, the Warm Boot macro sequence is executed following all the normal system and equipment initialization. **Note:** Warm Boot can be initiated from MAXPRO VMS (Cold Boot button in the Trinity Controller page).
Printer Fail Macro	Type the desired macro. When the MAXPRO VMS Server detects the hard-copy printer is no longer online, the Printer Fail Macro sequence is executed.

5. Select the **Master Network Clock** check box to select this node in a networked system to be the master clock. Selecting this check box ensures that once in every hour, all the other network nodes have the time and date synchronized to this node's clock.

Note: Only one network node in the system is permitted to be the master clock source.

6. Select the **Forward Net Broadcast** check box to suppress the forwarding of incoming broadcast messages.
7. Specify the settings for the following tabs.

- **Display Settings**

Settings	Instructions/Description
Text Type /Height	The rows on the table represent the different text type and heights that can be selected for display. Five (5) lines of normal height text or three (3) lines of double height text can be displayed. • **Monitor Normal** – normal height text displayed on monitors. • **Monitor Double** – double height text displayed on monitors. • **VCR/Other Normal** – normal height text displayed on VCRs and other video output devices. • **VCR/Other Double** – double height test displayed on VCRs and other video output devices. • **Pretext Normal** – normal height text inserted by pretext subracks. • **Pretext Double** – double height text inserted by pretext subracks.
Information Lines	The columns on the table represent the types of information that are displayed as text. Not all information line types are available for every text type and height. • **Real Time Clock Line** – defines the line where the Real Time Clock is displayed. • **Video Source Description** – defines the line where the video input device description is displayed. • **Monitor/Keyboard Description** – defines the line where the monitor description is displayed. When an operator selects the monitor this text is replaced with Keyboard description or the User description. • **Mode Line** – defines the line where the mode text (for example, scan mode) is displayed. • **Message Line** – defines the line where the message line text (for example, warning message) is displayed.

- **Other Settings**

Settings	Instructions/Description
Auto Message Timeout (in seconds)	Type a value to define the time period for the automatic display of automatic message line text. Valid values are 2-9 9 seconds.

Settings	Instructions/Description
Pretext Message Timeout (in seconds)	Type a value to define the time period for the automatic display of pretext message line text. Valid values are 2-99 seconds.
Default Test Mode	From the drop-down list, select the required test mode. • **Normal** – displays the system Configuration Summary. • **Rx data** – displays the data received on all the MAXPRO VMS Server serial communication ports. • **TX data** – displays the data transmitted from all the MAXPRO VMS Server serial communication ports. • **Execute Macros** – displays all the macro sequences executed by the system. • **Macro Trails** – displays the macro trail of the executed macro sequence on the screen. • **Error log** – displays all the subsequent entries to the error log file on the screen. • **Printer** – displays all the subsequent output to the hard-copy printer on the screen. • **Video Select** – displays every video switching action in the system. • **Control** – displays every control action for PTZ cameras, VCRs and so on. • **Auto Number** – no data is displayed on the menu output in this test mode. However, if this mode is selected, the description text displayed on video output show the logical device number of the device at the start of the text line. **Note:** When the system is running, the menu output can be selected to display any of the test modes by selecting **ALT-F1** to **ALT-F10** on the Qwerty keyboard.
Equipment Polling – Failed Macro	• Select an Equipment Polling status. • In the **Equipment Fail Macro** box, type the desired macro. Types of equipment that can be polled are: • Subracks • High Level /Mimic Panels • Keyboards • Network nodes

Settings	Instructions/Description
Pretext Status	Select the required pretext status. **Note:** All the pretext modules in the system must be of the standard or enhanced type. It is not possible to mix types. This does not apply to post text modules, which are defined, in the video outputs section. You can select the **Enhanced Text Card** or the **Hidden Text Card**, but not both. The Shadow and Double Height features can both be selected for either type text card.

- **Printer- Errorlog Reporting**

Settings	Instructions/Description
Event Group	Type the required event group.
Errorlog Printing	Select **Errorlog Printing** if you want to send the error log messages to printer.
Sign On/Off	Select **Sign On/Off** to send a report to printer whenever a user is signed on or signed off.
Errorlog Reporting	Select the type of error log messages that needs to be sent to the printer.

8. Click **Save** to change the updates.

COLD BOOT AND WARM BOOT

You can perform cold boot or warm boot of the MAXPRO VMS Controller.

1. Click the **Configurator** tab.
2. Expand the **Servers** branch in the navigation area, and then click **Controller**. The **Controller** screen appears in the display area.
3. Click **Update**. The **Trinity Controller** screen appears.
4. Click **Cold Boot** to restart the MAXPRO VMS Controller.

Or

Click **Warm Boot** to reinitialize all the devices connected to the MAXPRO VMS without any restart or shutdown of MAXPRO VMS Server.

SERIAL PORT

Serial port is a communication interface with which information is transferred in or out one bit at a time. Serial ports are added to MAXPRO VMS server for communication with joystick controllers (Ultrakey keyboards), Switchers, and Protocol Interface Translators (PIT). You can add up to 20 serial ports in MAXPRO VMS server.

ADDING A SERIAL PORT

To add a serial port

1. Click the **Configurator** tab.
2. Expand the **Servers** branch in the navigation area, and then click **Serial Ports**. The **Serial Ports** screen appears in the display area.
3. Click **Add**. A **Joystick** screen appears.

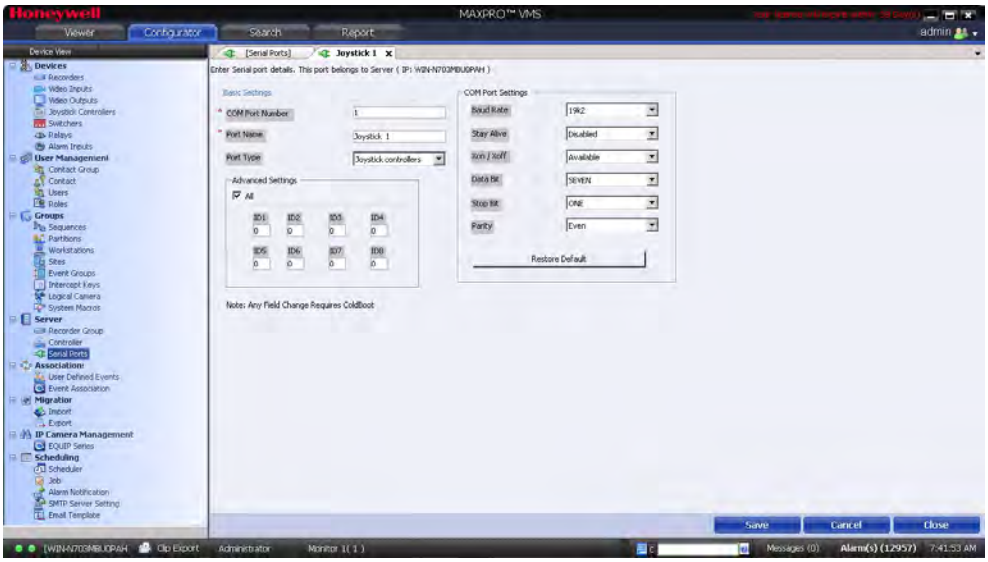

Figure 4-67 Joystick

4. Specify the **Basic Settings**. The following table lists the basic settings.

Field	Description
COM Port Number	The reference number of the serial port. There can be up to 20 ports defined in a single system.
Port Name	The port name that you want to assign. Ensure that the port name does not exceed 18-characters.

Field	Description
Port Type	The type of the serial port. You can select the port type from the drop-down list. The ports types are: • Joystick Controller • VB PIT • Auxiliary (Max Pro) • Error log - The error logged in the error log file is sent through the serial port. Only one port can be selected for errorlog data. • Analog -Mimic Panel • Serial Network • Serial Printer - The system hard copy print output is redirected to the serial port if this option is selected. Only one port can be selected as a printer port. • MaxPro Switcher • IO-Control (VideoBlox) • Auxiliary Control (VideoBlox) • Pre-Tilter • Test (Not recommended)

5. Select the Advanced Settings check box, to specify the advance settings. The following table lists the advanced settings.

Field	Description
ID 1 to ID 8	These fields are used for limiting the amount of data that is transmitted from a selected port. Placing a number in any of these fields only transmits data to the equipment of selected type with that ID number. The ID1 field allows the value ALL to be entered, which enables all data of the selected type to be transmitted, regardless of the ID number. Selecting ALL clears all the other ID fields. The valid ID range for the selected port types are: • Keyboard ID 1 – 99 • Subrack ID 1 – 799 • Network ID 1 – 255 • Highlevel/Mimic ID 1 – 99 Enter the value in each ID field and press **ENTER**. **Note:** This is not applicable for VideoBlox. For VideoBlox subrack (ID3 – ID4), these two fields represent the video loss source device type. • 0 & 0 represents video loss source device is Input cards. • 0 & 1 represents video loss source device is Concentrator. • 1 & 0 represents video loss source device is MVT or pretext devices. • 1 & 1 represents no device as video loss source device. For VideoBlox subrack (ID6), this ID represents the version of matrix switcher hardware for audio switching. 1 represents the old VideoBlox matrix switcher hardware. For VideoBlox subrack (ID7), this ID represents the version of matrix switcher hardware for video switching. 1 represents the old VideoBlox matrix switcher hardware.

6. Specify the COM Port Settings. The following table lists the COM port settings.

Field	Description
Baud Rate	The rate at which data is transferred through the port. By default, a baud rate of 19.2K is available for the port. To change the baud rate, select the desired baud rate from the drop-down list.
Stay Alive	Indicates if the MAXPRO-NET Server is functioning. When you enable this check box, an ACK character is transmitted from the port every 2 seconds. By default, the function is disabled. Select Enabled or Disabled setting from the drop-down list.

Field	Description
Xon/Xoff	If this option is enabled, Xon and Xoff characters are transmitted to resume and stop the data flow (Software handshaking). Xon/Xoff is enabled by default. To change the setting, select the desired setting /from the drop-down list.
Data Bit	The number of data bits per character can be selected as 7 or 8. The default value is 7. To change the data bits setting, select the desired setting from the drop-down list.
Stop Bit	The number of stop bits per character can be selected as 1 or 2. The default value is 1.
Parity	The type of parity to be used by the port can be selected as Even, Odd, or None. The Default is even parity. To change the parity setting, select the desired setting from the drop-down list. The value can also be typed into the field.

7. Click **Save**.

Note: Click **Restore Default** to restore the default settings.

UPDATING A SERIAL PORT

You can update the serial port when you want to change the basic, advanced, and COM port settings.

To update a serial port

1. Click the **Configurator** tab.
2. Expand **Server** in the navigation area.
3. Click the **Serial Ports** branch. The serial ports screen appears in the display area.
4. Select the check box corresponding serial port you want to update, and then click Update.
5. Modify the Basic Settings.
6. Modify the Advanced Settings.
7. Modify the COM Port Settings.
8. Click **Save**.

DELETING A SERIAL PORT

To delete a serial port

1. Click the **Configurator** tab.
2. Expand **Server** in the navigation area.
3. Click the **Serial Ports** branch. The list of existing serial ports is displayed on the screen.
4. Select the check box corresponding to the serial port you want to delete.
5. Click **Delete**. A message asking for confirmation appears on the top of the display area.
6. Click **Yes**.

USER DEFINED EVENTS

The devices such as recorders and cameras have predefined events. MAXPRO VMS provides an option to customize new events to recorders and cameras. These events can be mapped to an external source to trigger an alarm whenever an event occurs.

Note: For more information on mapping the events, contact your system administrator.

To add and associate an event to devices

1. Click the **Configurator** tab.
2. Expand **Associations** in the navigation area, and then click **User Defined Events**. The **User defined event association** screen appears in the display area.
3. Click **Add & Associate**. The **Associated Devices** dialog box appears.

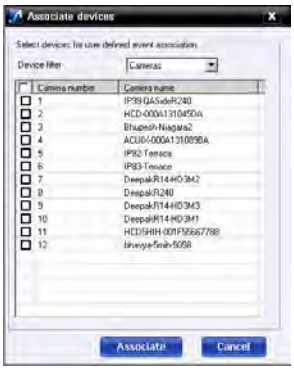

Figure 4-68 Associate Devices

4. From the **Device** filter drop-down list, select the required device category. The device number and the name of the device are listed.
5. Select the check box corresponding to the name of the device for which you want to define an event, and then click **Associate**. The device appears on the **User defined event association** screen.

Note: You can select multiple device names by selecting multiple check boxes.

6. In the **Global Event ID** box, type the unique global ID. If the Global Event ID is not assigned, MAXPRO VMS assigns a unique global ID automatically when you save the event.
7. In the **Event Description** box, type a description for the event.
8. In the **Start Procedure** box, type the required macro to start the event.
9. In the **End Procedure** box, type the required macro to end the event.
10. Click the **Disabled** box, and then select **True** or **False** from the drop-down list.
11. Click the **Severity Level** box and edit the severity level.

Note: Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set to 50 on the preferences tab, an alarm is triggered when threshold becomes 51.

12. Click the **Normal State** box and define the alarm normal state as **Closed** or **Open**.
13. Click the **Operating Mode** box and select the operating mode for the alarm. The available modes are:

- **Direct** - The alarm condition activates or de-activates when it physically changes state, or is set or cleared with macros.
- **Latched** - Once triggered the alarm will remain active until it is reset manually using the alarm clear key on the keyboard.
- **Toggle** - The first time the alarm is triggered it becomes active, the next time it is cleared.

To add a system generated event

1. Click the **Configurator** tab.
2. Expand **Associations** in the navigation area, and then click **User Defined Events**. The User defined event association screen appears in the display area.
3. Click **Add**. Follow steps 6 through 11 of See **To add and associate an event to devices**.

To add Event Groups to events

1. Select the check box corresponding to the device name for which you want to add the Event Group.
2. Double-click the **Event Group** box. The **Select Event Groups** dialog box appears.
3. Select the check box corresponding to the **Event Group** you want to add.
4. Click **OK**.

Note: You need to add an event group before you associates it to an event. See *Adding an Event Group* for more information.

To delete user defined events

1. Click the **Configurator** tab.
2. Expand the **Associations** branch in the navigation area, and then click **User Defined Events**. The User defined event association screen appears in the display area.
3. Select the check box corresponding to the event that you want to delete.
4. Click **Delete**. A message asking for confirmation appears.
5. Click **Yes**.

EVENT ASSOCIATION

The devices such as recorders and cameras have predefined events. MAXPRO VMS provides an option to associate events to a set of cameras and recorders at one stretch with just a few mouse clicks.

Note: Use this feature to do bulk association of events to a set of cameras and recorders.

To associate events to cameras and recorders

1. Click the **Configurator** tab.
2. Expand **Associations** in the navigation area, and then click **Event Association**. The **Event Association** screen appears in the display area.

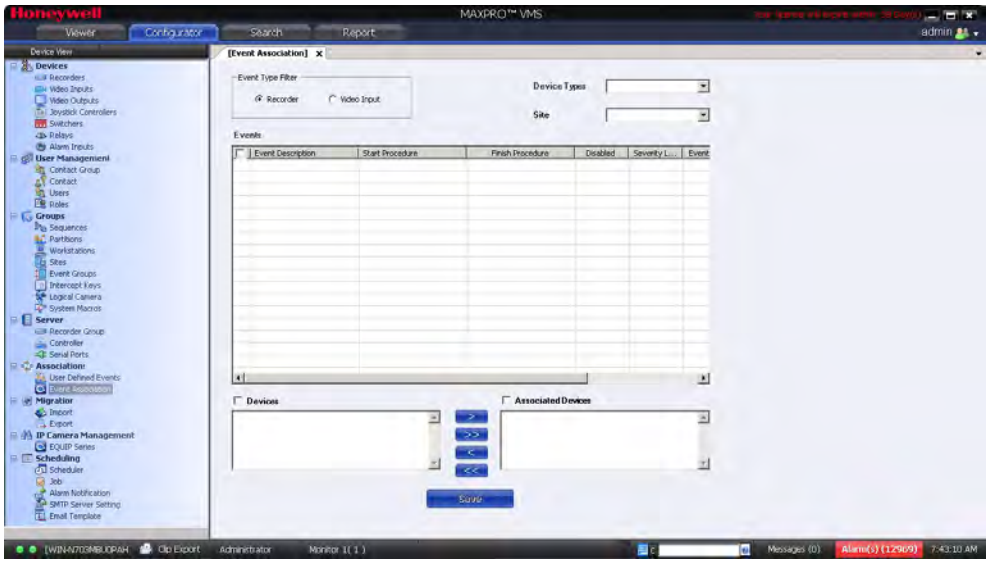

Figure 4-69 Event Association

3. Select “Recorder” or “Video Input” under **Event Type** Filter.
4. From the **Device Type**s drop-down list, select the required device.

   Based on the device selected, the following information appears.

   - The list of events associated to a device are listed in the **Events** table.
   - The number of devices corresponding to the selected device are listed under **Devices**.
5. From the **Site** drop-down list, select a site.
6. In the **Events** table, select the check box for the events you want to associate to the device. To associate all the events to a device, select the top level check box located in the header section of the **Events** table.
7. To complete the device event association, perform the following:

   - To associate one device at a time with the selected events, under **Devices**, select a camera and then click . The selected camera appears under **Associated Devices**.

- Click to associate all the devices to the selected events. All the devices appear under **Associated Devices**.
- To remove a device, under **Associated List**, select a check box corresponding to the device, and then click . The selected device appears under **Devices.**
- Click to disassociate all the devices to **Devices**.

8. Click **Save** to save the information.

MIGRATION

MAXPRO VMS supports data migration of mpn and max files from legacy applications like MaxproNet. Enterprise NVR configuration data can be migrated into MAXPRO VMS using the HLI file. You can also export the MAXPRO VMS configuration whenever required. From MAXPRO VMS R200 onwards, you can export or import the configuration file of the previous versions of the MAXPRO VMS.

EXPORTING THE FILES

To export the database

1. Click the **Configurator** tab.
2. Expand **Migrations** in the navigation area, and then click **Export.** The **Export** screen appears in the display area.

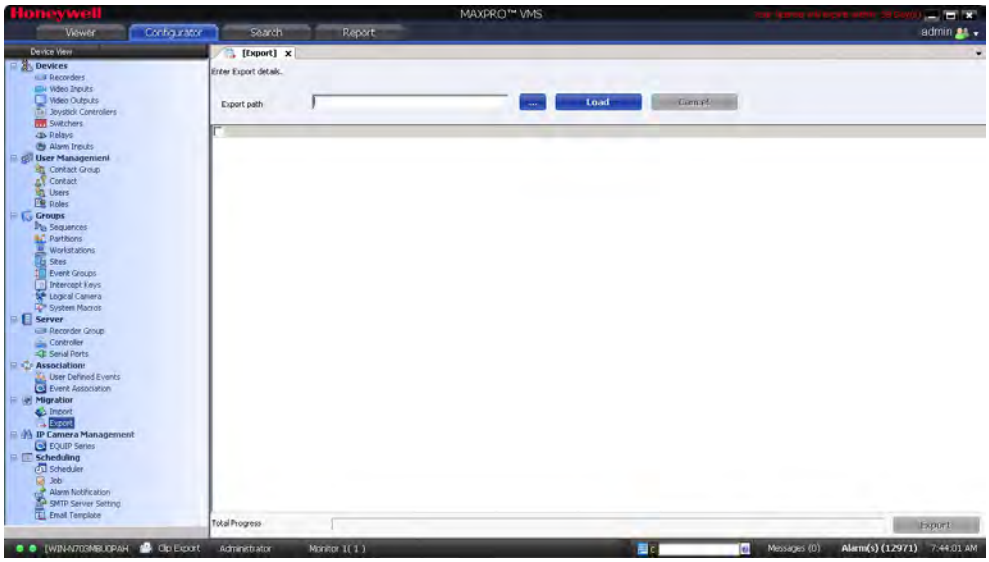

Figure 4-70 Exporting Database

3. In the **Export Path** box, click the ellipses button to select a path.

Or

If you want to export the files to a network location, click the ellipses button, specify the path, and then click **Load**.

4. Click **Export**.

IMPORTING THE DATABASE

To import the database

1. Click the **Configurator** tab.
2. Expand **Migrations** in the navigation area, and then click **Import**. The **Import** screen appears in the display area.

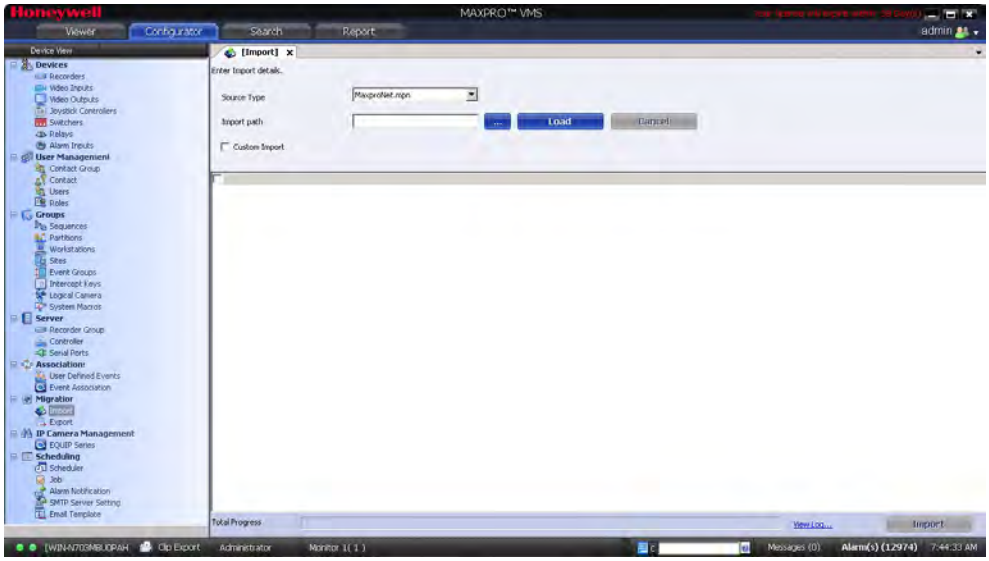

Figure 4-71 Importing Database

3. From the **Source Type** drop-down list, select the required database type.
4. In the **Import Path** box, click the ellipses button to select the location.

Or

If you want to import the files to a network location, click the ellipses button, specify the path, and then click **Load**

5. In the **IP Address/ Hostname** box, type the IP address or host name of the Enterprise recorder from which mapping has been done in the enterprise HLI file that is being imported.

Note: The **IP Address/ Hostname** box appears only when you select Enterprise HLI as the source type.

---

5. Click **Import**.

Note: When you change the IP address of an Enterprise recorder, after importing the HLI file, a message asking for confirmation to delete sub devices appears. If you click **Yes**, the hybrid cameras revert to analog cameras. The VCR entries are missed and hence, you have to import .mpn and .ini file once again to retain the settings of Maxpronet and HLI. However, the Digital Input Trunk remains unchanged. If you click **No**, the settings of hybrid camera does not change. It is recommended to click **No** when the message asking for confirmation appears to deflect sub devices.

EQUIP SERIES CAMERA

You can upgrade, assign a new IP, and also check the version details of the Equip series cameras that are connected to MAXPRO VMS.

To discover Equip series cameras

1. Click the **Configurator** tab.
2. Expand **IP Camera Management** in the navigation area, and then click **Equip Series**. The **Equip Series** screen appears in the display area displaying the list of discovered cameras by the system.

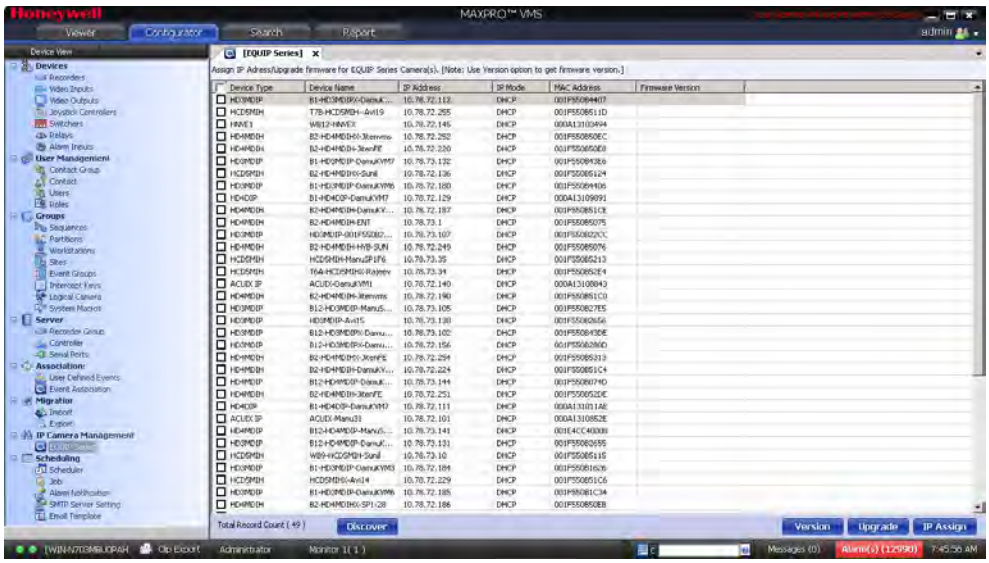

Figure 4-72 Equip Series Cameras

VERSION

To check the version

1. Click the **Configurator** tab.
2. Expand **IP Camera Management** in the navigation area, and then click **Equip Series**. The **Equip Series** screen appears in the display area.
3. Select the check box corresponding to the cameras for which you want to check version.
4. Click **Version**.

FIRMWARE UPGRADE

To upgrade the firmware

1. Click the **Configurator** tab.
2. Expand **IP Camera Management** in the navigation area, and then click **Equip Series**. The **Equip Series** screen appears in the display area.
3. Click **Upgrade**. The upgrade options appear in the lower pane.

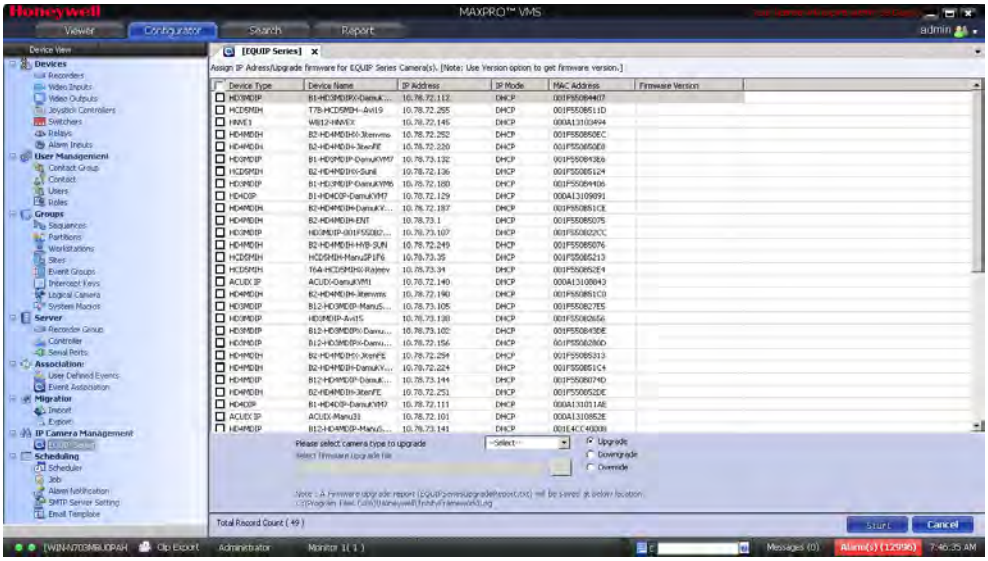

Figure 4-73 Upgrade Options

4. From the **Please select camera** type to upgrade drop-down list, select the required Equip series camera. The available cameras for the Equip series are displayed.
5. Select the check box corresponding to the cameras that you want to upgrade firmware.
6. In the **Select firmware upgrade file** box, click the ellipses button, and then select the firmware upgrade file.
7. Click **Start**. A confirmation message appears.
8. Click **OK**.

ASSIGNING IP ADDRESS

To assign IP address

1. Click the **Configurator** tab.
2. Expand **IP Camera Management** in the navigation area, and then click **Equip Series**. The **Equip Series** screen appears in the display area.
3. Select the check box corresponding to the cameras for which you want to assign IP address.
4. Click **IP Assign**. The IP assign options appear in the lower pane.
5. In the **Enter Starting IP Address** box, type the starting IP address for the camera. The next available IP address from the one that is entered is assigned to cameras that are selected.
6. In the **Subnet Mask** box, type the subnet mask for the camera.
7. In the **Default Gateway** box, type the default gateway for the camera.
8. Click **Start**.

AUTOMATICALLY OBTAINING IP ADDRESS FOR A CAMERA

To obtain an IP address

1. Click the **Configurator** tab.
2. Expand **IP Camera Management** in the navigation area, and then click **Equip Series**. The **Equip Series** screen appears in the display area.

3. Double-click the camera for which you want to obtain an IP address. The general settings for the camera appear.

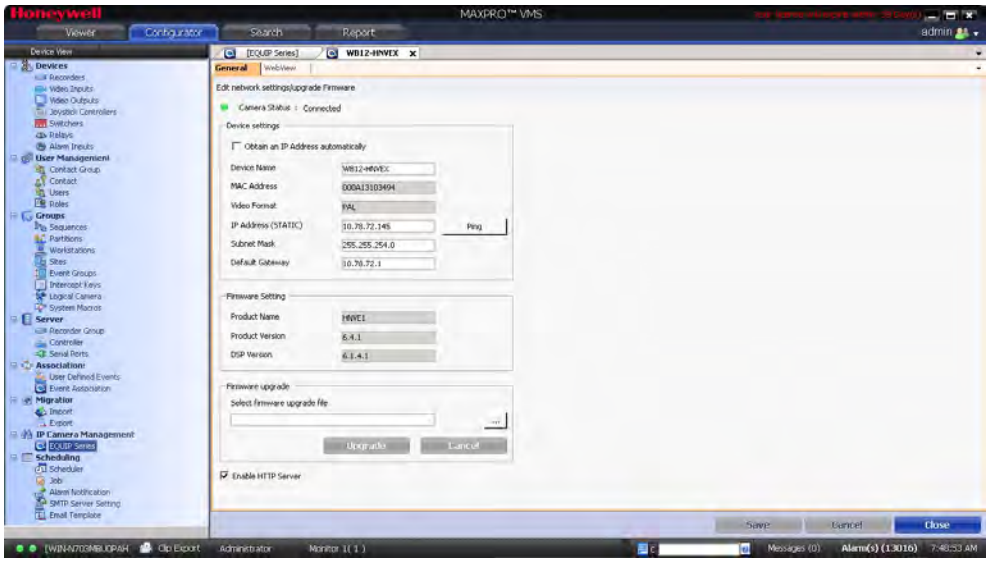

Figure 4-74 Camera General Settings

4. Select the **Obtain an IP Address automatically** check box, and then click **Save**. A confirmation message appears.
5. Click **OK**.

Note: You can also edit the IP address, subnet mask, and default gateway if the camera has a static IP address.

SCHEDULER

You can create jobs in MAXPRO VMS to back up data and also to clean up the database. You can associate these jobs to schedulers. MAXPRO VMS currently has a default scheduler and it is recommended to retain the default settings.

UPDATING A SCHEDULER

To update a scheduler

1. Click the **Configurator** tab.
2. Expand **Scheduling** in the navigation area, and then click **Scheduler**. The **Scheduler** screen appears in the display area.
3. Click **Update**. The **Scheduler General Settings** screen appears.

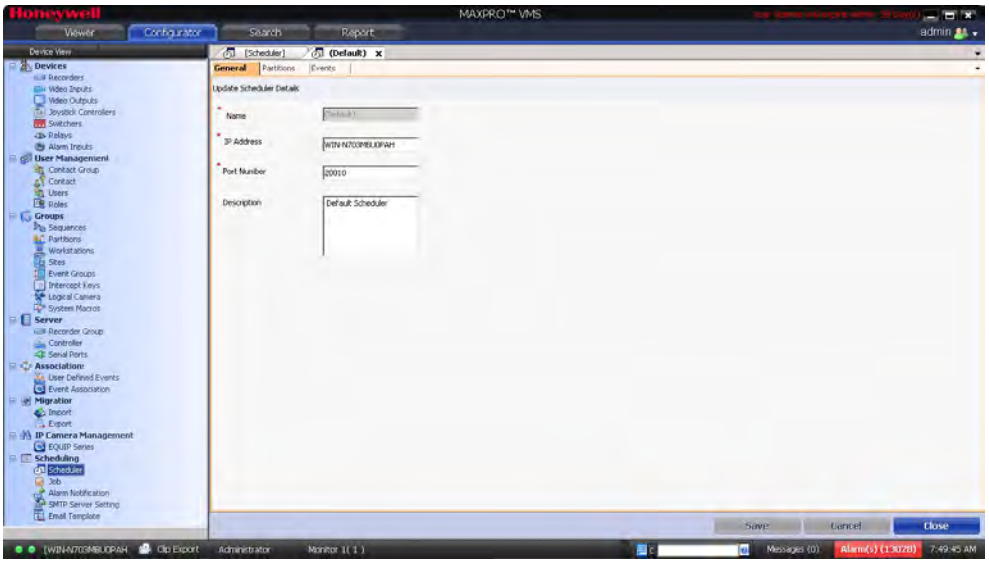

Figure 4-75 Scheduler General Settings

4. In the **IP Address** box, the default IP address displays. You can type a new IP address as applicable.
5. In the **Port Number** box, the default port number displays. You can type a new port number as applicable.
6. In the **Description** box, the default description displays. You can type a new description for the scheduler as applicable.
7. Associate Partitions. See *Associating Partitions to Scheduler* for more information.
8. Associate Events. *Associating Events and Event Attributes to a Scheduler* for more information.
9. Click **Save**.

ASSOCIATING EVENTS AND EVENT ATTRIBUTES TO A SCHEDULER

You can associate one or more events to the scheduler. An alarm is triggered whenever any of the associated event occurs for the scheduler. For certain events, you can also associate event attributes. For example, for an Scheduler Job Failed event, you can associate attributes such as Scheduler Name, Scheduler Description and so on. For every attribute that you associate, you can set a value based on which the event is triggered. In the above example, you can associate the attribute Scheduler Name to the event and set its value as Scheduler A. When

this event is associated to the scheduler, an alarm is raised when the event “Scheduler Job Failed” occurs for the Scheduler Name “Scheduler A”.

To associate events to a scheduler

1. Click the **Events** tab. The screen displays the associated events, if any.

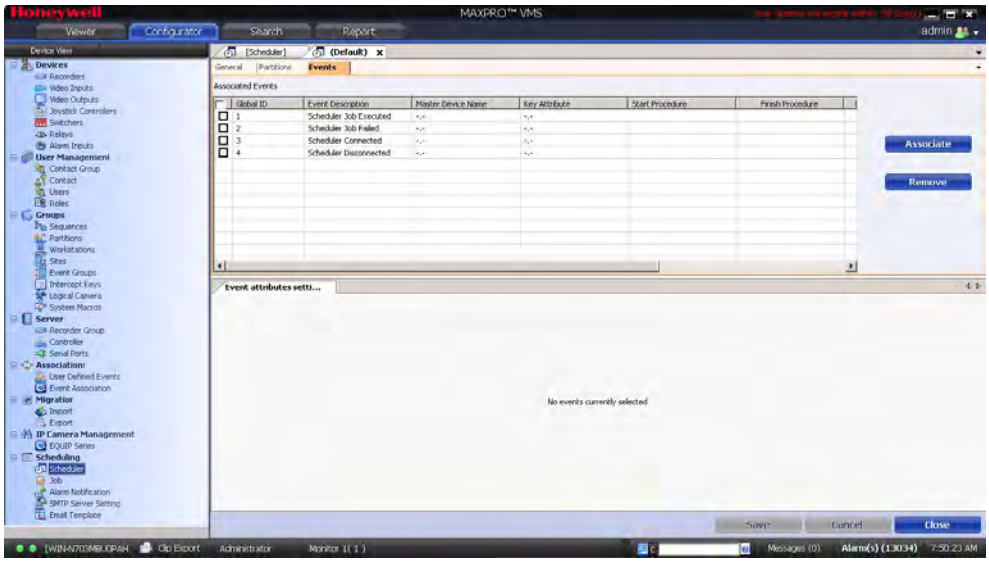

Figure 4-76 Scheduler Events

2. Click **Associate**. The **Select From List** dialog box appears.
3. Select the check box corresponding to the event you want to associate.
4. Click **OK**.

To disassociate events from a scheduler

- Select the check box corresponding to the event, and then click Remove. The events are disassociated from the scheduler

To add Event Groups to events

1. Select the check box corresponding to the event you want to add the Event Group.
2. Double-click on the **Event Group** box. The **Select Event Groups** dialog box appears.
3. Click the check box corresponding to the **Event Group** you want to add.
4. Click **OK**.

Note: You need to add an event group before you associates it to an event. See *Adding an Event Group* for more information.

To disable an event

1. Select the check box corresponding to the event you want to disable.
2. Click on the **Disabled** box. A drop-down list is enabled.
3. Select **True** to disable the event.

To assign severity level

1. Select the check box corresponding to the event you want to assign the severity level.
2. Double-click on the **Severity** Level box and edit the severity level.

Note: Severity level is set to trigger alarms when the threshold is met. For example, if the threshold is set 50 in the preferences tab, an alarm is triggered when threshold becomes 51.

To enter remarks

1. Select the check box corresponding to the event you want to enter remarks.
2. Click the **Remarks** box and type the remarks

To assign macros

1. Select the check box corresponding to the event you want to assign macros.
2. Click the **Start Procedure** box, and then type the required macro.
3. Click the **End Procedure** box, and then type the required macro.

ASSOCIATING EVENT ATTRIBUTES

Before you begin

- Associate events.

To associate event attributes

1. Select the check box corresponding to the event for which you want to associate event attributes. The **Event attributes settings** appear in the lower pane.
2. Click **Associate**. The **Select Available Event Attributes** dialog box appears.
3. Select the check box corresponding to the event attributes that you want to associate.
4. Click **OK**.

To disassociate event attributes from a video input

- Select the check box corresponding to the event attribute, and then click **Remove**.

ASSOCIATING PARTITIONS TO SCHEDULER

You can associate partitions to a scheduler. Associating a partition to a scheduler restricts a non- associated user of the partition from viewing the scheduler or changing the settings of the scheduler.

You can associate more than one partition to a scheduler.

Before you begin

- Add a Partition. See *Adding a Partition* for more information.

To associate partitions to a scheduler

1. Click the **Partitions** tab. The screen displays the associated partitions, if any.

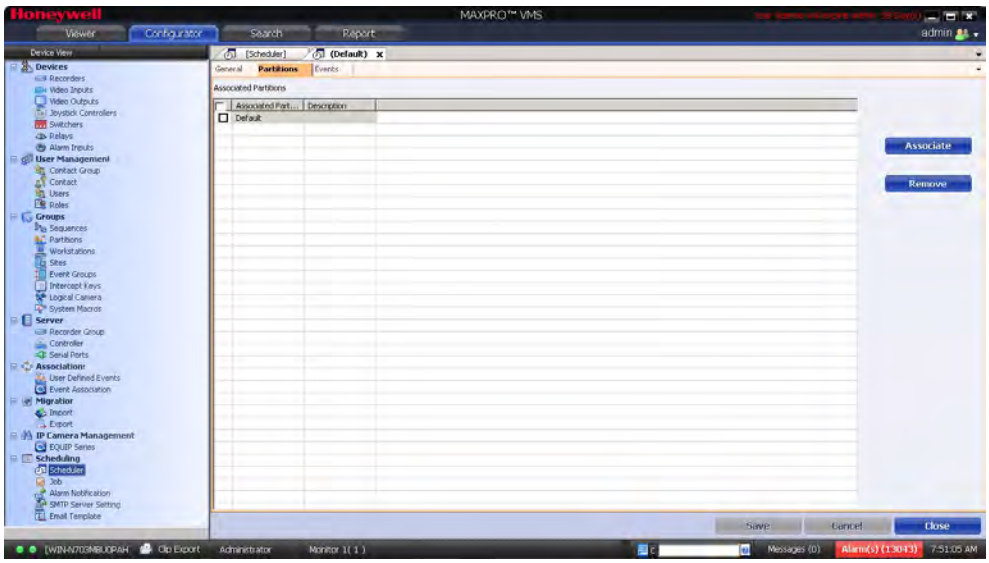

Figure 4-77 Scheduler Partitions

2. Click **Associate**. The **Select Partitions** dialog box appears.
3. Select the check box corresponding to the partition name you want to associate.
4. Click **OK**.

To disassociate partitions from a scheduler

- Select the check box corresponding to the partition name, and then click **Remove**.

JOBS

Jobs are tasks that are automatically executed at a stipulated time and date. Jobs can be scheduled to clean up database and back up the database. The frequency to perform the tasks can be defined. Only a user with admin rights can create jobs in MAXPRO VMS.

ADDING JOBS

You can add a job to clean up the database or backup the data.

To add a job

1. Click the **Configurator** tab.
2. Expand **Scheduling** in the navigation area, and then click **Job**. The **Job** screen appears in the display area.
3. Click **Add**. The **Schedule Job** screen appears.

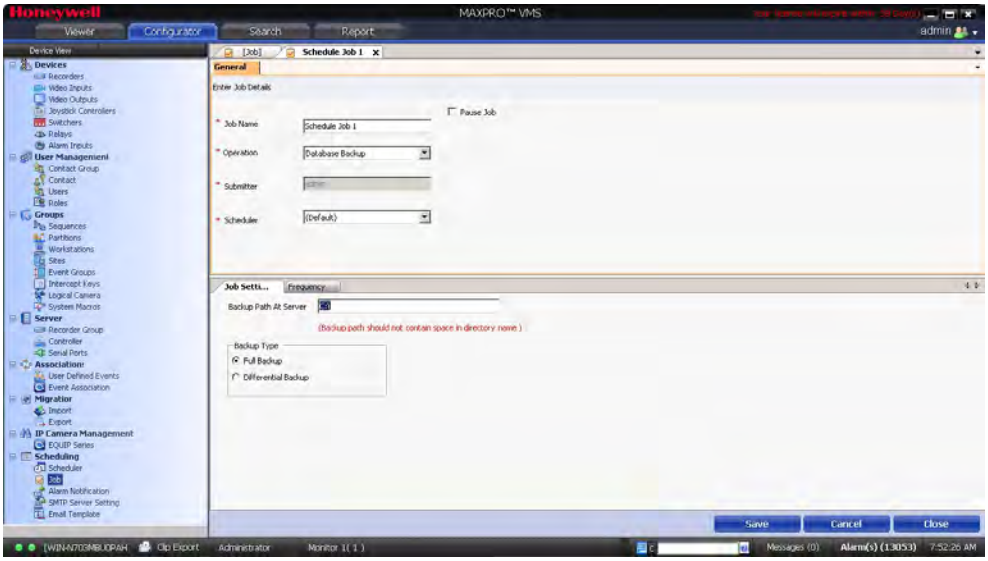

Figure 4-78 Schedule Job

4. In the **Job Name** box, type the name for the job.
5. From the **Operation** drop-down list, select **Database Cleanup** or **Database Backup**.
6. From the **Scheduler** drop-down list, select the required scheduler.

7. On the **Job Settings** tab, specify the settings. The following table lists the settings for both **Database Cleanup** and **Database Backup**

Settings	Instructions
Database Backup	• In the **Backup Path At Server box**, type the path to back up the data. **Note:** The backup path must not contain any spaces in the directory name. • In the **Backup Type** section, click **Full Backup** or **Differential Backup** as per your requirement. **Note:** Differential backup contains all files changed since the last full backup. Ensure that a full back up is taken at least once before the differential back.
Database Cleanup	• Select **Event History** or **Audit Log** or both as per the requirement. • In the **Cleanup Criteria**, select **All** if you want to clean up all records in the database. or • Select **Last**, and then type the number of days from when the records should be cleaned. For example, if you type 30, then the records of the last 30 days are cleaned. or • Select **Last**, and then type the number of records to be cleaned. For example, if you type 30, then the last 30 records that were created are deleted.

8. On the **Frequency** tab, specify the following settings.

Settings	Instructions
Start From	Specify the start date and time.
End By	Specify the end date and time.
No End Date	Select this option if you do not want any end date for any schedules.

Settings	Instructions
Frequency	You can choose from a set of frequencies that are available. The available frequencies are: • **Now** - to run a job at that point of time. • **Once** - to run a job once. • **Hourly** - to run a job every hour. • **Daily** - to run a job daily. • **Weekly** - to run a job weekly. Select a day on which you want the job to run. • **Monthly** - to run a job monthly. In the **Every___of every___Month(s)**, type the day on which the job has to be performed every month. • **Yearly** - to run a job yearly.

9. Click **Save**.

ALARM NOTIFICATION

The alarms that are triggered can be notified to users. You can select a device, its events, and associate it to a contact group. The users belonging to the contact group receive a notification whenever a selected event occurs and an alarm is triggered.

To configure an alarm notification

1. Click the **Configurator** tab.
2. Expand **Scheduling** in the navigation area, and then click **Alarm Notification**. The **Alarm Notification** screen appears.

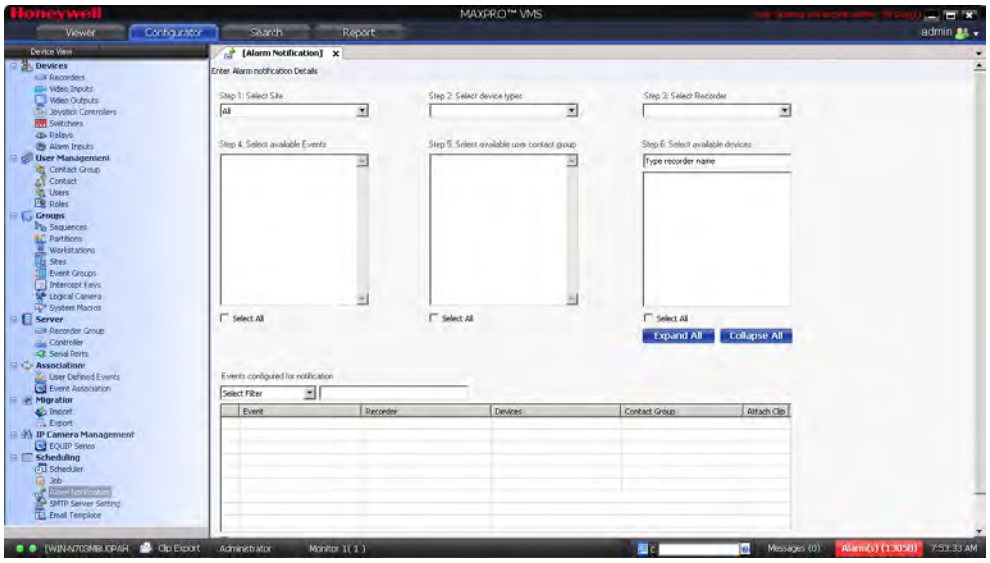

Figure 4-79 Alarm Notification

3. From the **Step 1: Select Site** drop-down list, select required site.
4. From the **Step 2: Select device types** drop-down list, select the required device type. The related devices, the associated events, the available user contact group and the available devices are displayed.
5. In the **Step 3: Select Analytics Server**, select the required analytics server.
6. In the **Step 4: Select available Events**, select the required events. If you want to select all the events, click **Select All**.
7. In the **Step 5: Select available user contact group**, select the contact group check box for which the alarm notification needs to be sent. If you want to select all the user contact groups, click **Select All**.
8. In the **Step 6: Select available devices**, select the required available devices check box. You can click **Expand All** to expand the devices tree. Similarly you can click **Collapse All** to collapse the devices tree.
   If you want to select all the available devices, click **Select All**.
9. Click **Save**. The selected events for which alarm notification needs to be sent is displayed in the **Events Configured for notification** section as shown below.

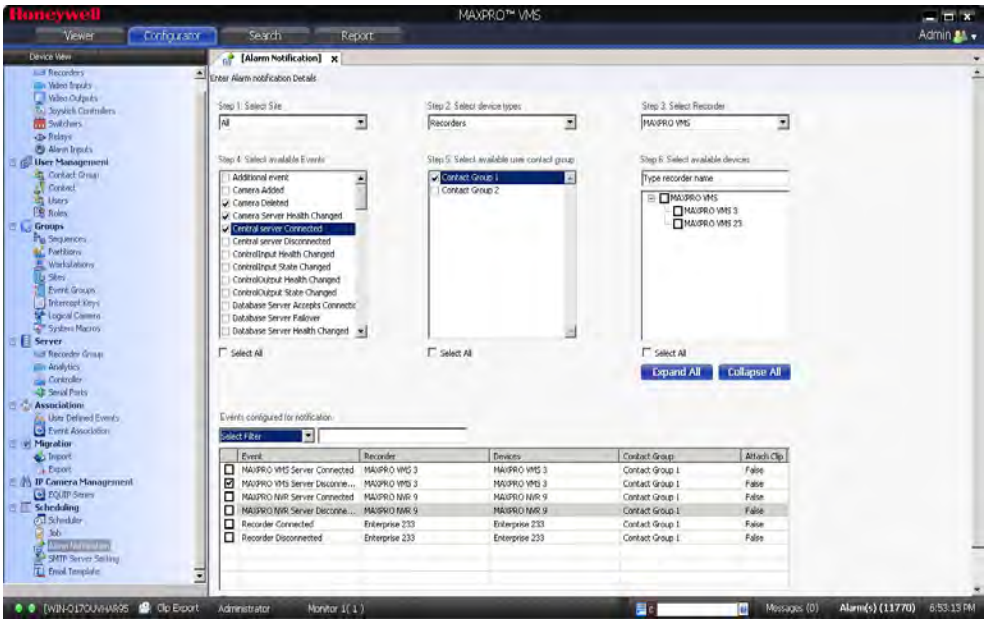

Figure 4-80 Events Configured for notification

Removing events from alarm notification

1. In the **Events Configured for notification** section, select the required events.
2. Click **Remove**.

FILTERING THE EVENTS CONFIGURED

To filter the events configured

1. In the **Events Configured for Notification**, select the filter from the drop down list as shown below.
   Or
   Type the filter name in the box. The specified events are displayed in the table.

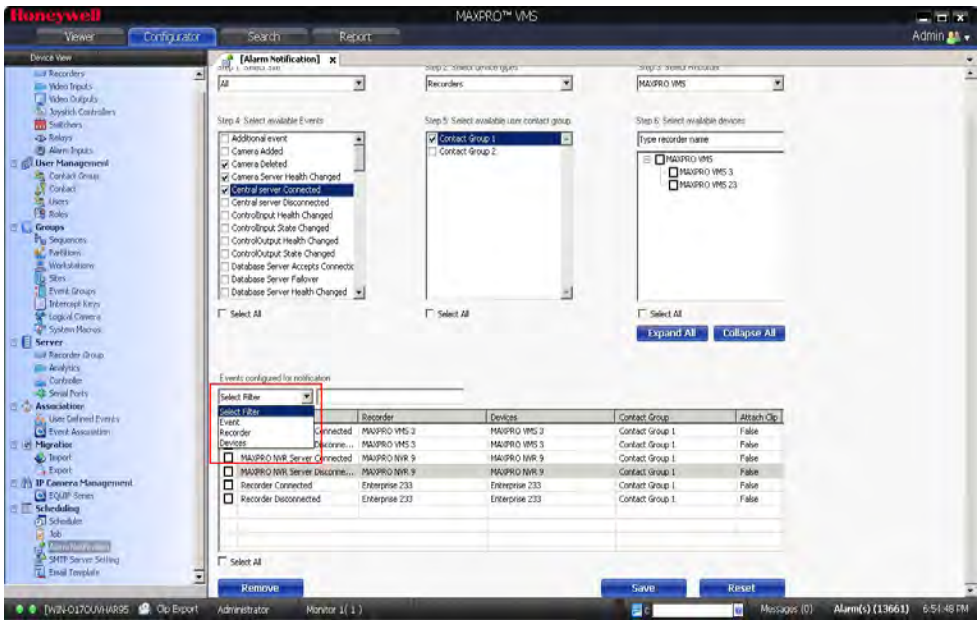

Figure 4-81 Filtering the Events Configured

2. Click **Save**.

ATTACHING CLIP

You can attach a clip to the event configured for the notification.

To attach a clip to an event

1. In the **Events Configured for Notification** table, double-click on the required event under **Attach Clip** as shown below. A drop-down list is displayed

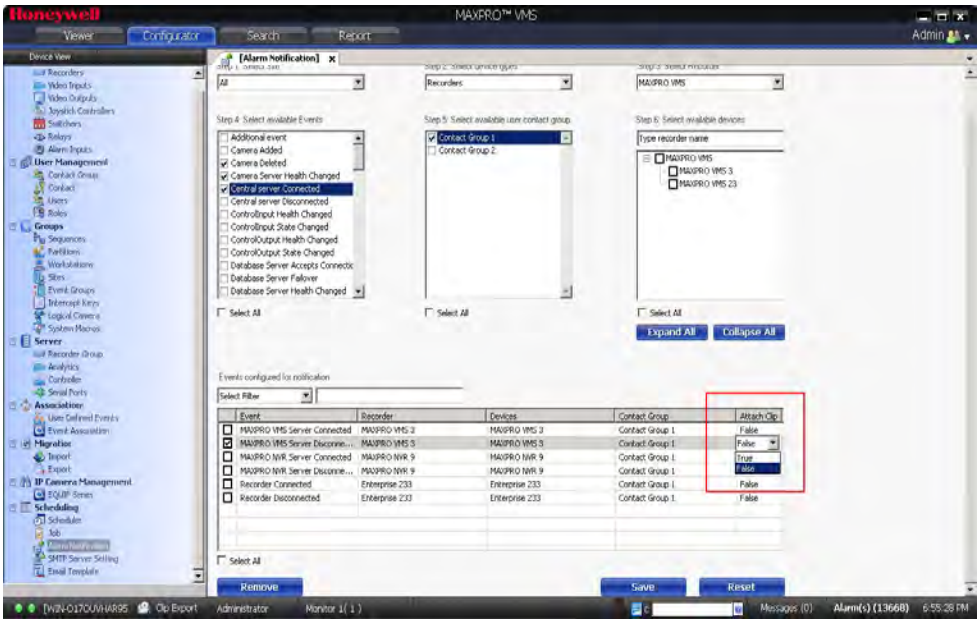

Figure 4-82 Attaching Clip

2. Select **True** to attach the clip and then click **Save**.

SMTP SERVER SETTINGS

To configure SMTP settings

1. Click the **Configurator** tab.
2. Expand **Scheduling** in the navigation area, and then click **SMTP Server Setting**. The **SMTP Server Settings** screen appears in the display area.

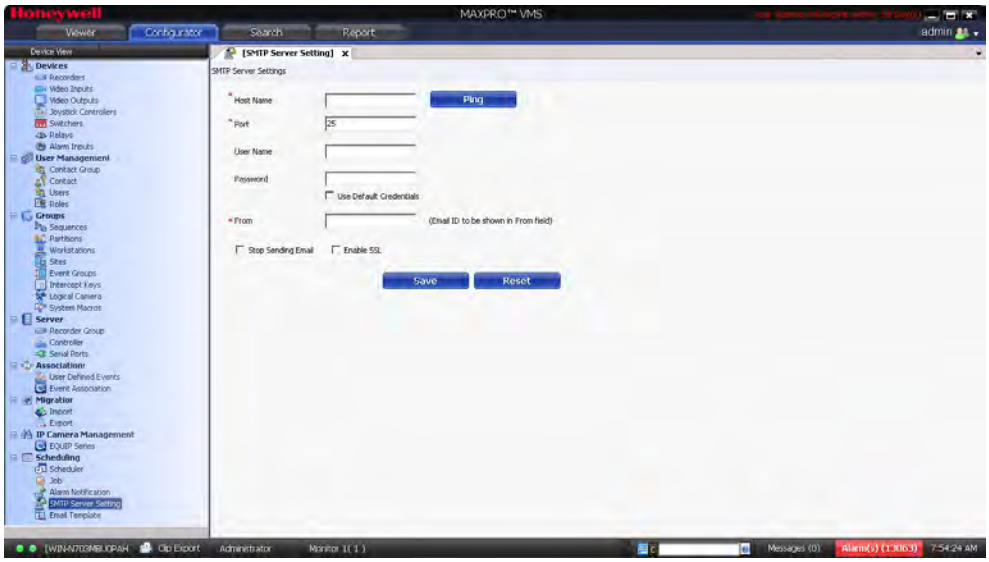

Figure 4-83 SMTP Server Settings

3. In the **Host Name** box, type a host name. Click **Ping** to verify the connection. The field appears in green if the IP address or the host name is valid.
4. In the **Port Number** box, the port number displays by default.
5. In the **User Name** box, type a name for the user.
6. In the **Password** text box, type a password for the user.

Note: Select the **Use Default Credentials** check box, if you want to use the credentials that were used while logging on.

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7. In the **From** box, type the email address that should appear when an email is sent.

Note: Select **Stop Sending Email**, if you do not want to send an email from the configured settings.

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8. Select the Enable SSL check box to enable the SSL settings.
9. Click **Save**.

CREATING AN EMAIL TEMPLATE

You can create an email template in MAXPRO VMS and use it while sending email notification about alarms to users.

To configure email template

1. Click the **Configurator** tab.
2. Expand **Scheduling** in the navigation area, and then click **Email Template**. The **Email Template** screen appears in the display area.

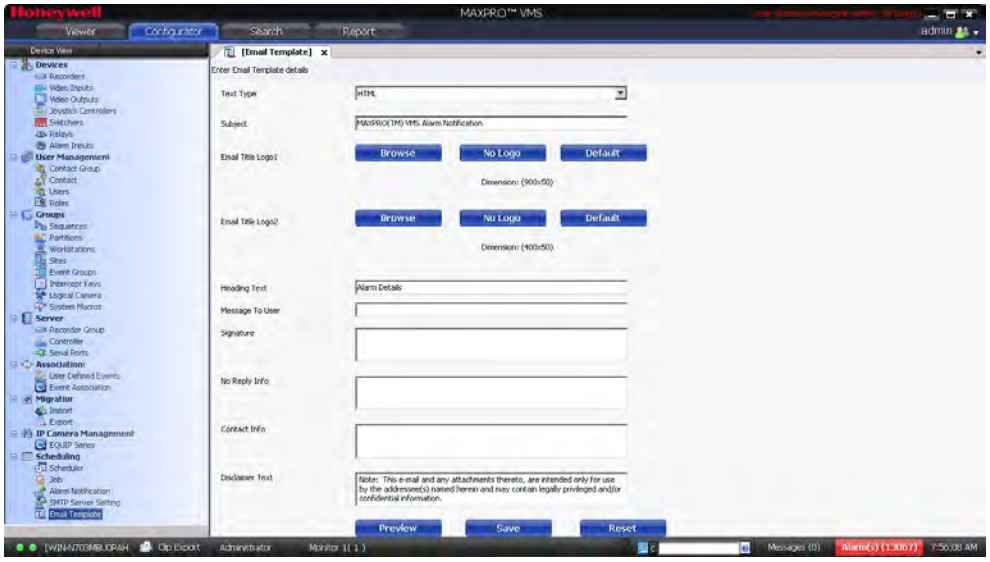

Figure 4-84 Email Template

3. From the **Text Type** drop-down list, select required text type for sending an email. The default text type is “HTML”.
4. In the **Subject** box, the default subject that appears in an e-mail displays. You can type a new subject as per your requirement.
5. In the **Email Title Logo1** and **Email Title Logo2**, do one of the following:
   a. Click **Browse** to browse and select the title logo image for the e-mail.
   b. Click **Default** to retain the default logo image.
   c. Click **No Logo** to remove the selected or default logo image.

Note: The dimension for Email Logo 1 should be 900 X 50 and for Email logo 2 should be 400 X 50.

6. In the **Heading Text** box, the default heading text displays. You can type a new heading text as per your requirement.
7. In the **Message to User** box, type the required message to user if any.
8. In the **Signature** box, provide the signature.
9. In the **No Reply Info** box, type the no reply message to the user if any.
10. In the **Contact Info** box, type the contact details for user to communicate.

11. In the **Disclaimer Text** box, the default disclaimer text displays. You can type a new disclaimer text as per your requirement.
12. Click **Preview** if you want to preview the e-mail.

Note: Click **Reset**, if you want to reset the email template.

13. Click **Save**.

5

VERIFYING THE CONFIGURATION OF MAXPRO VMS

OVERVIEW

Verifying the configuration of the MAXPRO VMS is the final phase in the commissioning process. In this phase, you need to verify the working of the MAXPRO VMS.

BEFORE YOU BEGIN

Ensure that the configuration of the MAXPRO VMS is complete.

ACTIVITIES TO PERFORM IN THIS PHASE

In this phase, using the MAXPRO VMS user interface, perform the tasks listed in the following table to verify the configuration in VMS Server.

Task	See...
Connection with the MAXPRO VMS server (logging on)	*page 303*
Device listing in the Devices window	*page 304*
Live video display from cameras	*page 306*
Playback of recorded video	*page 307*
Inserting comments and marking the point of interest using the bookmark feature in Timeline window	*page 309*
Playback of loop (mark in and mark out feature) in Timeline window	*page 310*
Panning, tilting, and zooming functions (analog PTZ and Digital PTZ)	*page 311*
Acknowledgement of alarms and clearing of alarms	*page 312*
Image creation	*page 314*
Clip creation	*page 315*
Sending and receiving operator messages	*page 316*
Video from the surrounding cameras (video pursuit or surrounding cameras feature in MAXPRO VMS)	*page 317*
Saving the salvo layout using the salvo view feature	*page 318*

Task	See...
Device listing in My Devices window	*page 319*
Searching recorded video	*page 320*
Generating and viewing the event and operator log report	*page 321*

CHECKING THE CONNECTION WITH MAXPRO VMS SERVER

The MAXPRO VMS can consist of one or more servers. You can save the address of each server in profiles from the **Log On** dialog box that appears when you start MAXPRO VMS. The **Log On** dialog box is illustrated in the following figure.

Figure 5-1 MAXPRO VMS Log on

To connect to a MAXPRO VMS R310 server from the client computer

1. Click the language selection option, and then select the required language from the drop-down list. The supported languages are Chinese, German, French, and Arabic. The default language is English.

Note: You can localize the language using the localization tool. For more details, refer to the ***MAXPRO VMS R310 Localization Guide. pdf*** which is available on the DVD.

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2. In the **Username** box, type the user name. The default user name is “admin”.
3. In the **Password** box, type the password. The default password for the default user name “admin” is “trinity”.
4. In the **Profile** box, select the profile in which the server address is saved.
5. Click . The **MAXPRO VMS** dialog box is displayed.

You can set a profile as the default profile. When a profile is set as default, you need not select the profile each time you log on to MAXPRO VMS. You can also modify and delete profiles.

Note: Refer to the ***MAXPRO VMS R310 Help*** for more information on how to save server addresses in profiles, how to set a profile as default profile, and how to modify and delete profiles.

CHECKING THE DEVICE LISTING IN THE DEVICES WINDOW

By default, the **Viewer** tab is selected when you log on to MAXPRO VMS. The **Devices** window lists the recorders, and switchers along with the cameras connected to them in a tree structure. Similarly sequences are listed in the **Sequences** window, salvo views are listed in the **Views** window, and monitors are listed in the **Monitors** window. A drop-down box on the top of the **Devices** window and **Monitors** window lists the partitions. The following figure illustrates the **Viewer** tab.

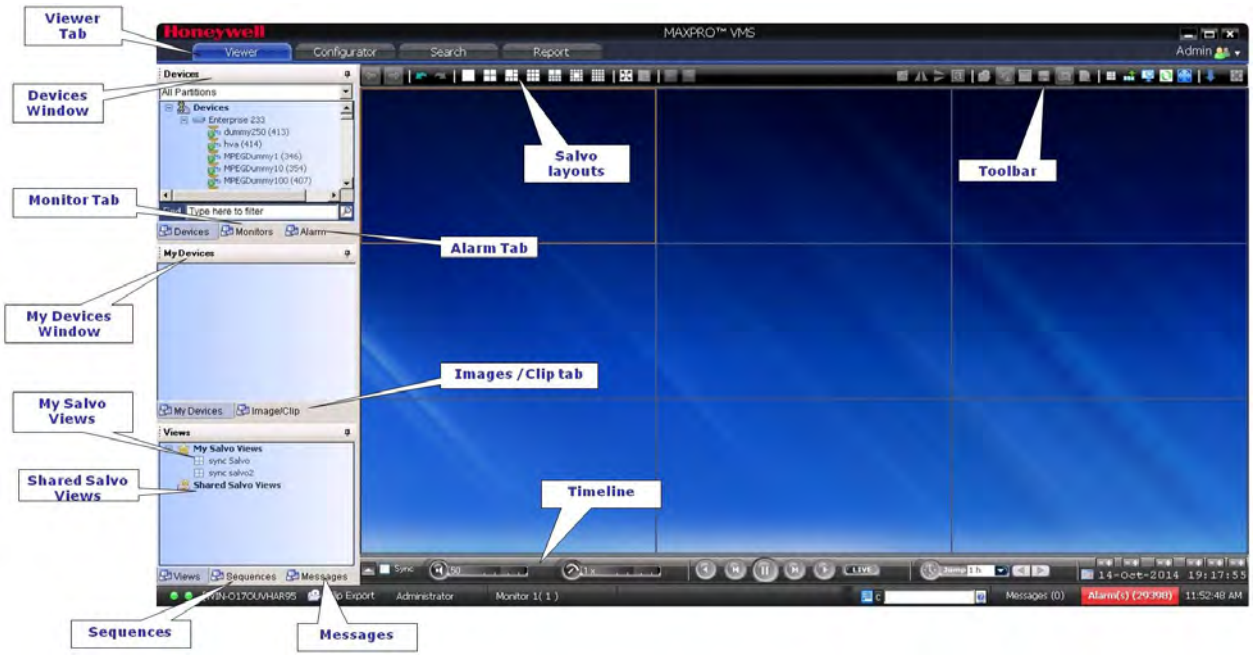

Figure 5-2 Viewer tab

Ensure that all the devices, sequences, and salvo views added to the MAXPRO VMS are listed in the respective windows.

To view the list of devices, monitors, sequences, and salvo views that are added:

- Click the required tab, in the **Viewer**. The devices, monitors, sequences, and salvo views are displayed in a tree view. For example, if you want to view the sequences, click the **Sequences** tab. The **Sequences** window appears with the list of sequences displayed in a tree structure. The sites that are associated to the monitors are also displayed in the **Monitors** window.

To view the list of devices and monitors for all the partitions

- In the drop down box, on the top of the **Devices** window, select **All Partitions**. The devices associated to the partition are displayed. Similarly, on the top of the **Monitors** window, select **All Partitions**. The monitors associated to the partition are displayed. The icons next to the devices in the **Devices** window indicate the status and type of each device.

Note: Refer to the ***MAXPRO VMS R310 Help*** for more information on the **Viewer** tab.

CHECKING THE LIVE VIDEO FROM CAMERAS

To ensure that all the cameras are connected and functioning properly, you need to check for live video from them.

To select the cameras and view live video

- Double-click the camera in the **Devices** window or **My Devices** window. You can also drag the camera on a panel in the salvo layout. The panel starts displaying live video and the label **Live** appears over the video display.

The camera can also be selected using the virtual keyboard and joystick controller. You can select multiple cameras and view live video in different panels of the salvo layout.

Note: Refer to the ***MAXPRO VMS R310 Help*** for more information on how to view live video from cameras.

CHECKING THE PLAYBACK OF RECORDED VIDEO

To playback video, the recording from the camera must be available and the recording settings for the camera must be configured. You can find out the status of the camera by the colored indicator on the camera icon in the site view. If the indicator on the camera icon is green means the camera is active. If the indicator on the camera is red means it is recording.

Note: Refer to the ***MAXPRO VMS R310 Help*** for more information on how to configure the recording settings for the cameras connected to the various recorders.

Recorded video can be played from the **Timeline** window. The following figure illustrates the **Timeline** window.

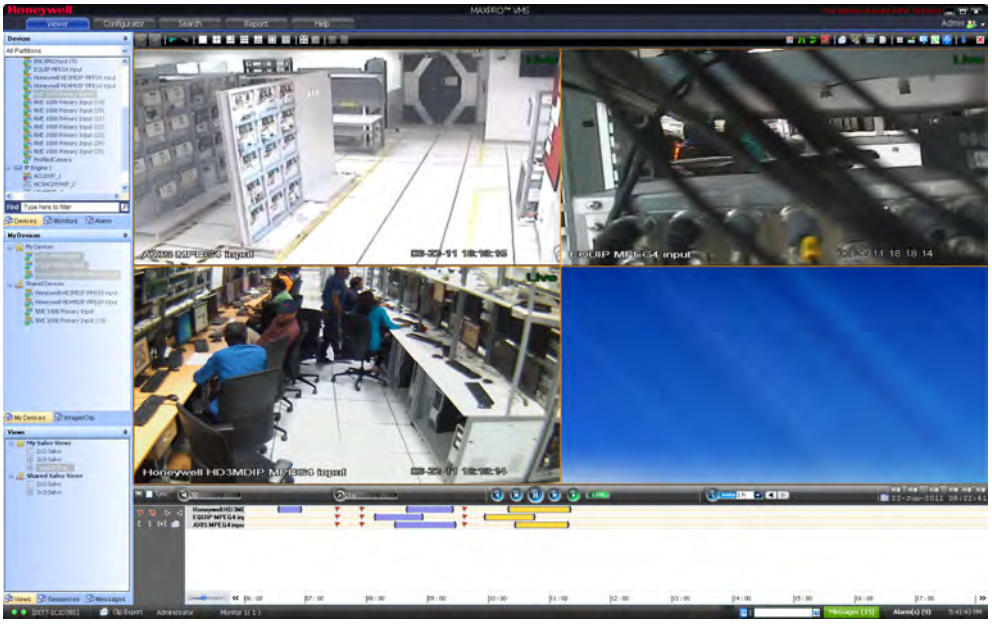

Figure 5-3 Time line window

When you select a camera to view video, a timeline corresponding to the camera appears in the **Timeline** window. The name of the camera appears on the left of the timeline.

To play recorded video from a camera, you can click the timeline at the point from which you want to play video. A timescale is displayed in the lower part of the **Timeline** window. You can refer to the divisions in the timescale to locate the date and time. You can also select a date and time from which you want to play recorded video using the date and time options in the timeline window.

Color codes are used in the timeline to indicate the availability of video recording for the cameras connected to the recorder. The time duration for which recording is available is indicated in green color. The time duration for which recording is not available is indicated in white color.

For cameras connected to other recorders such as Rapid Eye, Fusion, Enterprise and Intellex, the color codes are not displayed in the timeline. However, you can click a point in the timeline to play recorded video.

The label **Rec** is displayed in red color on the panel displaying recorded video from a camera.

Note: For more information on how to play recorded video from the Timeline window and how to use the player controls, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE BOOKMARK FEATURE

The bookmark feature is used for marking points of interest in a video recording. Comments are added to the bookmarks and they appear as ToolTips in the timeline at marked points.

They are helpful while reviewing recorded video. The bookmarks can be cut or copied and pasted at different points in the timeline.

Operators can selectively view video by browsing from one bookmark to another in a timeline. The following figure illustrates bookmarks added to the timeline.

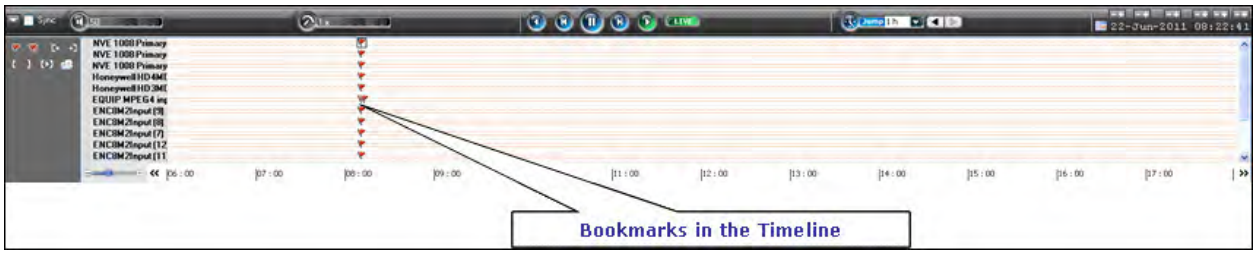

Figure 5-4 Bookmarks

Note: For more information on how to add, edit, cut, copy, paste, and delete bookmarks and on how to browse between bookmarks, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE PLAYBACK LOOP IN THE TIMELINE WINDOW

Loops are used for repeatedly playing a portion of video. Mark in and mark out points are used to create a loop in the **Timeline** window. You can add a mark in point to mark the start date and time of the loop in the timeline. To mark the end date and time of the loop, add a mark out point in the timeline. The following figure illustrates a loop in the timeline.

Figure 5-5 Loops

Note: For more information on how to create loops by adding mark in and mark out points and how to play a loop, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE PANNING, TILTING, AND ZOOMING

In MAXPRO VMS, you can perform two types of PTZ namely, analog PTZ and Digital PTZ. Using the digital PTZ feature in MAXPRO VMS, you can perform tilting and zooming on live and recorded video and clips. You can also perform panning operations on live video and clips. The digital PTZ feature when enabled allows you to perform panning and tilting on the video display that is zoomed or enlarged in a panel.

You need to perform both analog and digital PTZ on cameras to verify the functioning.

Note: For more information on how to perform analog and digital PTZ, refer to the ***MAXPRO VMS R310 Help***.

CHECKING FOR ACKNOWLEDGEMENT AND CLEARING OF ALARMS

Alarms notify the occurrence of events and event attributes to the operators. You can configure alarms to be triggered when events such as recorder disk space nearing full, motion detection, and others happen. The event attributes that are associated to events are listed in the details of the alarm in **Alarm** window. The events that trigger an alarm can be selected while configuring the recorders, cameras, and switchers. Events can be associated to event groups.

Each alarm goes through the following states.

New or Unacknowledged

When an alarm is triggered it appears in the Alarm window. You can click the **Alarm** tab to view the **Alarm** window. The state of the alarm after it is triggered is referred to as unacknowledged. You can view the list of all the unacknowledged alarms in a table in the **Alarm** window. The following figure illustrates the **Alarm** window.

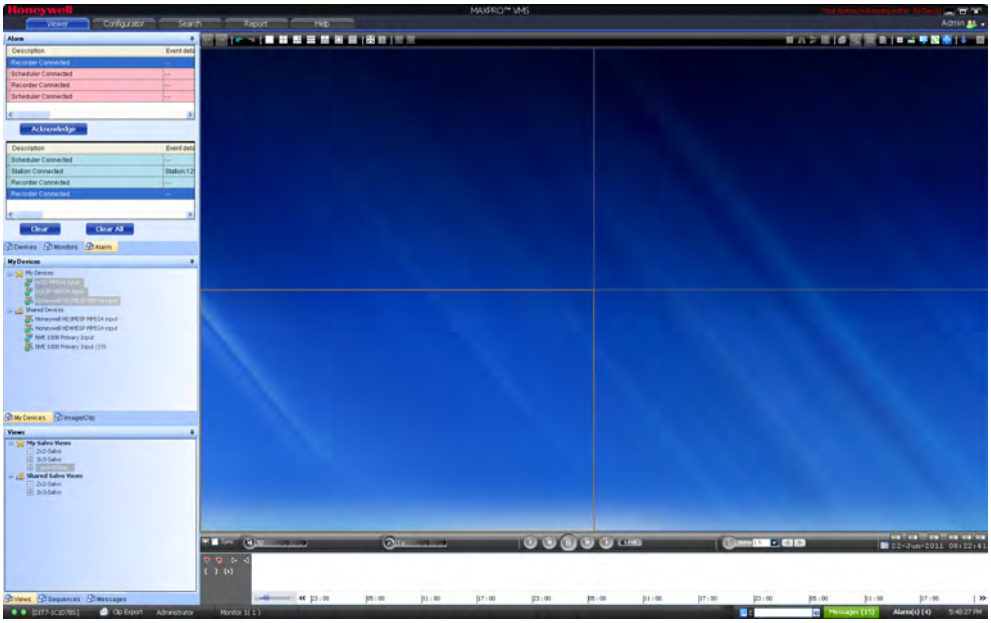

Figure 5-6 Alarm window

The number of unacknowledged alarms is displayed in a blinking mode in the status bar in red color. For example, **Alarms (10)** indicate that there are ten unacknowledged alarms. You can select various options using the context menu or shortcut menu by right clicking on the **Alarms** window. The options include:

- Acknowledge (ACK)
- Clear on ACK
- Ack all
- Show Video
- Show Preview Pane
- Show Details
- Freeze
- Receive Alarms Only
- Receive Events Only

- Receive both Alarms and Events

Acknowledge

An acknowledged alarm indicates that the operator has taken the action. After acknowledging the alarm, it is moved to the acknowledged alarms list in the Alarm window. You can also use the Acknowledge button below Alarms window. To clear acknowledged alarms, use the Clear button below Acknowledged list window.

Clear on ACK

This option clears the alarms which are acknowledged.

Ack all

This option acknowledges all the alarms at once.

Show Video

Select this option if you want to view video from which the alarm was generated.

Show Preview Pane

This option gives you four windows which display alarms which are on, pre-alarm, post alarm, and live alarm videos.

Show Details

This option displays the Alarm Details window. The Alram Details window displays the details of description of the alarm, Device name, Date time, Alarm State, Global Event ID and the Event attributes.

Freeze

Select this option if you no longer wish to receive alarms.

Receive Alarms Only

Select this option if you want to receive only alarms.

Receive Events Only

Select this option if you want to receive only Events.

Receive both Alarms and Events

Select this option receive both alarms and events.

Note: For more information on how to acknowledge and clear alarms, refer to the ***MAXPRO VMS R310 Help***.

CHECKING FOR THE CREATION OF IMAGES

A frame of video displayed in the panel can be saved as an image. The image can be saved in Bitmapped Graphics (BMP), Joint Photographic Experts Group (JPG) format, Portable Graphics format (PNG), and Graphics Interchange Format (GIF).

Only the images saved in the **ImagesAndClips** folder at the location in the hard drive in which MAXPRO VMS files are installed can be viewed in the **Image/ Clip** window. You can double-click the image view option in the **Image/Clip** window to view images on the salvo layout. You can also select the image size large, medium, and small as per the requirement.

For example, **X:\ProgramFiles\Honeywell\TrinityFramework\ImagesAndClips**. Here, X: is the disk drive.

The following figure illustrates the **Image/Clip** window.

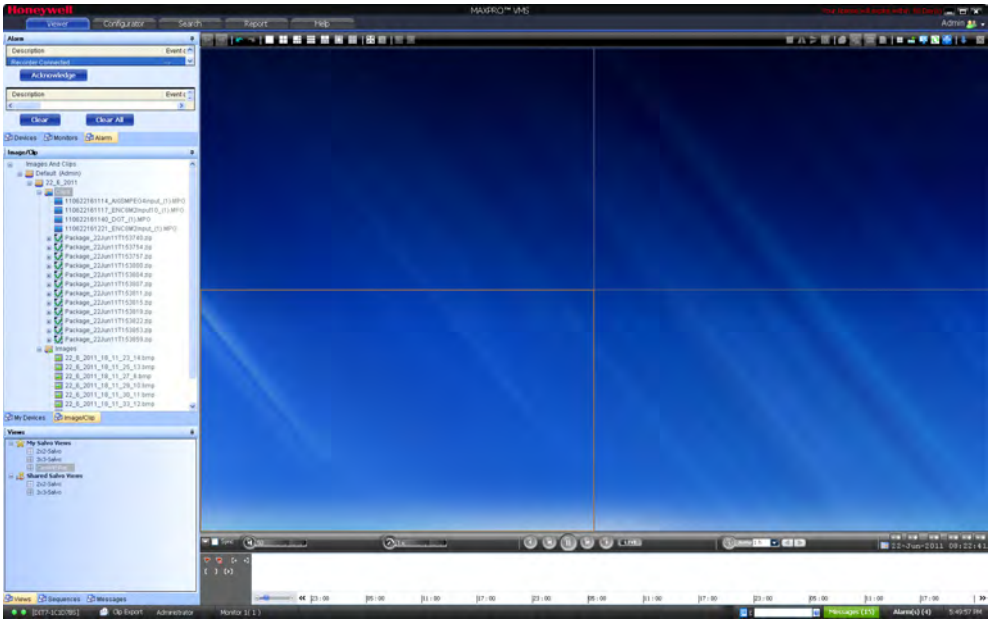

Figure 5-7 Image/Clip window

The images can also be saved in other folders on the computer.

Note: For more information on how to save and view images, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE CREATION OF CLIPS

Clips can be created from recorded video and saved in MP4, MPG, AVI, and WMV format depending on the format supported by the recorders. Only the clips saved in the ImagesAndClips folder at the location in the hard drive in which MAXPRO VMS files are installed can be viewed in the **Image/ Clip** window.

For example, **X:\ProgramFiles\Honeywell\TrinityFramework\ImagesAndClips**. Here, X: is the hard drive.

The clips can also be saved in other folders on the computer.

The clips can be saved with digital signatures. Digital signatures ensure authenticity of clips. Digital signatures are primarily used to authenticate videos that are produced in courts as evidence. A digital signature generates a unique string for the clip using algorithms recommended by the World Wide Web Consortium (W3C) standards. If the video in the clip is modified, a verification check for the unique string fails indicating that the content is tampered. When a clip is saved with the digital signature, a package file with the.PKG extension is created to save the clip.

Note: For more information on how to save and view images, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE SENDING AND RECEIVING OF OPERATOR MESSAGES

Operator messaging enables operators to send video displayed in one or more panels or the whole salvo layout to other operators and digital monitors. Comments can be included in the message sent to operators. The comments are not included when the message is send to digital monitors. The received messages can be viewed in the **Messages** window.

The number of new messages appears in the blinking mode in the status bar. For example, **Messages(3)** in green color indicates three new messages. The following figure illustrates the **Messages** window.

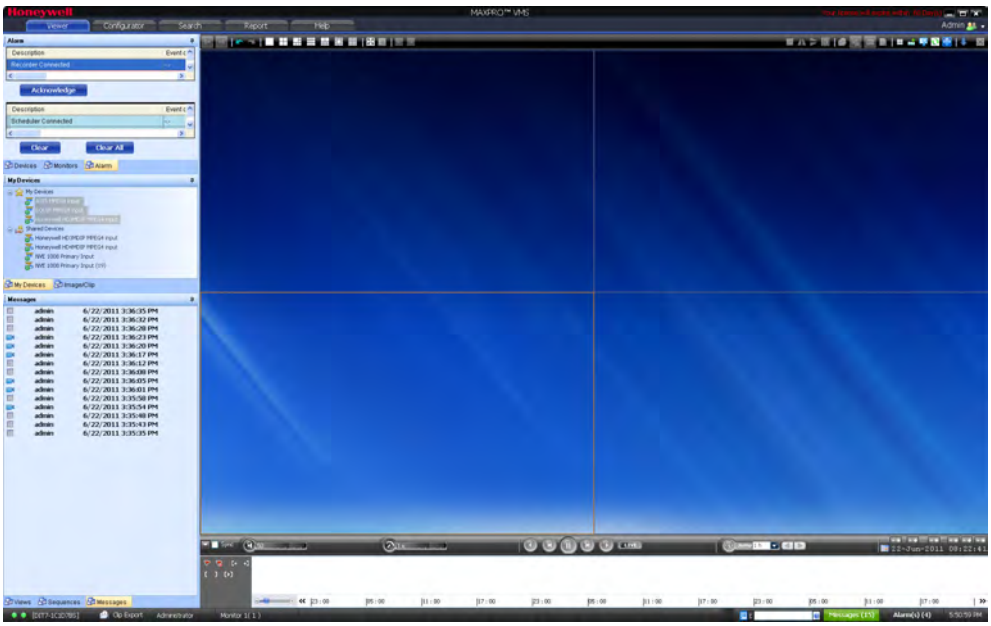

Figure 5-8 Messages window

Note: For more information on how to send and receive messages, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE SURROUNDING CAMERAS FEATURE

A camera can be associated to a group of cameras using the surrounding cameras feature. This feature enables operators to view video from a group of related cameras at the same time. For example, video from cameras located in the same area.

Note: For more information on how to associate camera and how to view video from a group of related cameras, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE SAVING THE SALVO LAYOUT USING THE SALVO VIEW FEATURE

A salvo layout that is customized based on the preferences of the operators is referred to as a salvo view. Cameras and sequences that are selected frequently and the preferred salvo layout can be saved as a salvo view. The saved salvo views appear in the Views window.

Note: For more information on how to create, select, and manage salvo views, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE DEVICE LISTING IN MY DEVICES WINDOW

In the **My Devices** window, operators can group the video sources, which are frequently selected such as cameras, monitors, and sequences. If you group the video sources, it is easy to select and you need not search in the **Devices** window, which generally consists of many video sources. You can also group the devices under shared devices. Devices grouped under shared devices are displayed on all client workstations irrespective of the logged in user.

The following figure illustrates **My Devices** window.

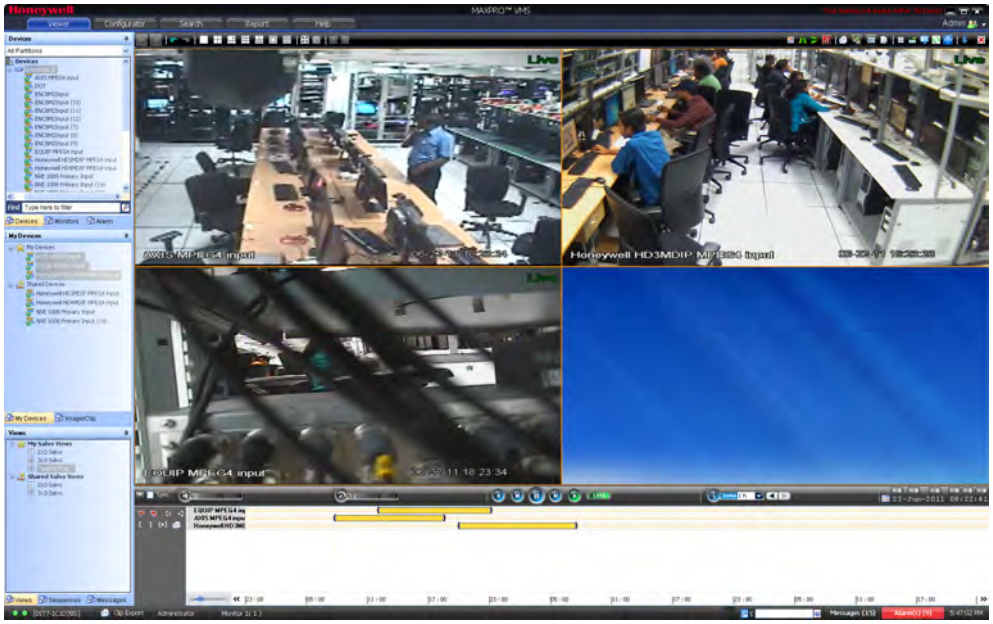

Figure 5-9 My Devices window

Note: For more information on how to add a video source to **My Devices** window and how to create folders to group them, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE SEARCH FOR RECORDED VIDEO

Operators can search for recorded video, events, bookmarks from cameras connected to the recorders. The **Search** tab looks similar to the following figure.

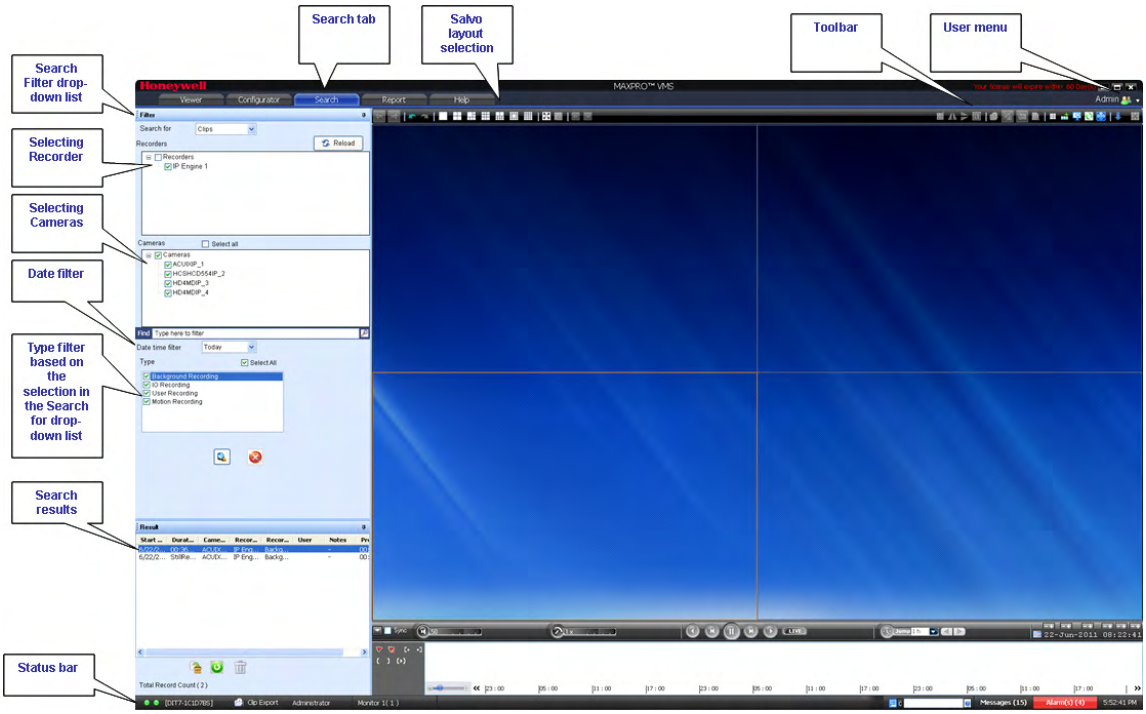

Figure 5-10 Search tab

Note: For more information on how to search for recorded video, clips and bookmarks and how to play the search results, refer to the ***MAXPRO VMS R310 Help***.

CHECKING THE GENERATION OF EVENT HISTORY AND OPERATOR LOG REPORT

Two types of reports, namely event history report and operator log report, can be generated.

The event history report can be generated for cameras, monitors, recorders, and switchers. The event history report lists the events related to a device during a time period. For example, for a camera, you can generate the event history report to know the occurrence of events like enabling of camera motion detection, starting of background recording, and others.

The operator log report can be generated to view the activities performed by users. The operator log report lists the activities performed by users during a time period. For example, creating clips, adding bookmarks, sending messages and other actions performed by a user.

You can generate reports from the **Report** tab. The following figure illustrates the **Report** tab.

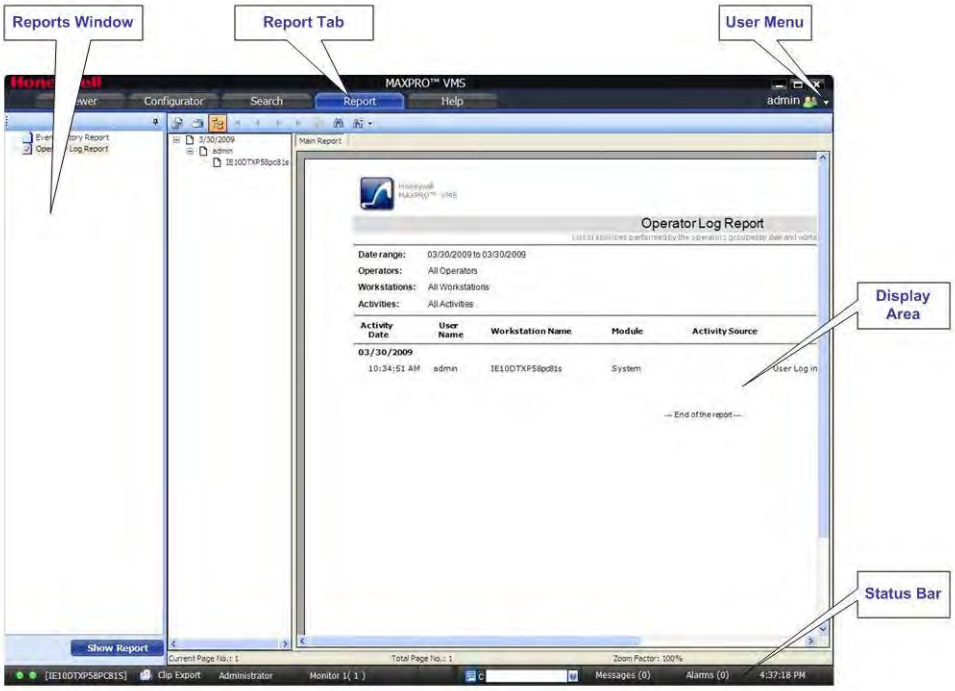

Figure 5-11 Report tab

Note: For more information on how to generate and view the reports, refer to the ***MAXPRO VMS R310 Help***.

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6

UPGRADING TO MAXPRO VMS R310

OVERVIEW

This chapter describes a common procedure for upgrading MAXPRO VMS software from:

- R300 Build 185 to R310
- R300 Build 188 to R310
- R300 SP1 to R310
- R300 SP2 to R310

The upgrade procedure is same for all the patches that are released on top of R300 SP1 and SP2.

BEFORE YOU BEGIN

- Ensure that the client and server computers meet the software requirements.

UPGRADING MAXPRO VMS R300 TO MAXPRO VMS R310

See the instructions in the following sections to upgrade to MAXPRO VMS R300.

BEFORE YOU BEGIN

1. Stop Trinity Services.
   a. Choose **Start**>**Run**, and then type **services.msc**. The **Services** window appears.
   b. Right-click **TrinityContoller**, and then select **Stop**.
   c. Right-click **TrinityServer**, and then select **Stop**.
2. Stop the recorder Services if you have any recorder client or server installed.
   a. Choose **Start**>**Run**, and then type **services.msc**. The **Services** window appears.
   b. Right-click IP Engine Logger, and then select **Stop**. The **Stop Other Services** dialog box appears.
   c. Click **Yes**.
3. Update the firewall configuration to allow SQL Server and SQL Express connections.

Caution: For upgrading recorder driver from the MAXPRO VMS R300 to MAXPRO VMS R310, please ensure that your computer has Internet Explorer version 7.0 or later.

To upgrade to MAXPRO VMS R310

1. Insert the MAXPRO VMS R310 DVD in the DVD drive. The setup runs automatically. If the setup does not run automatically, browse to the setup folder on the DVD and double-click **Setup. exe**.

Note A confirmation message is displayed to disable the Automatic Windows updates as shown below. Click **Yes** to disable and proceed. The **Welcome** dialog box appears.

Question
Automatic Windows update has been enabled in your system. To install MAXPRO VMS R310, you have to disable automatic updates. Click Yes to disable automatic updates and proceed with installation
Yes
No

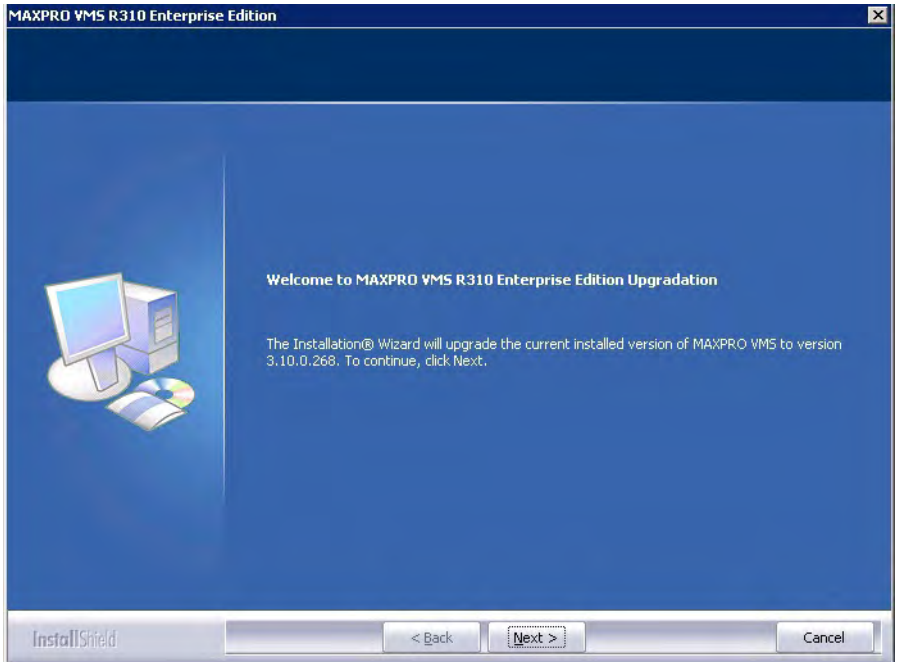

MAXPRO VMS R310 Enterprise Edition
Welcome to MAXPRO VMS R310 Enterprise Edition Upgradation
The Installation® Wizard will upgrade the current installed version of MAXPRO VMS to version 3.10.0.268. To continue, click Next.
InstallShield
< Back
Next >
Cancel

Figure 6-1 Welcome

2. Click **Next**. The **Validation of User Credentials** dialog box appears

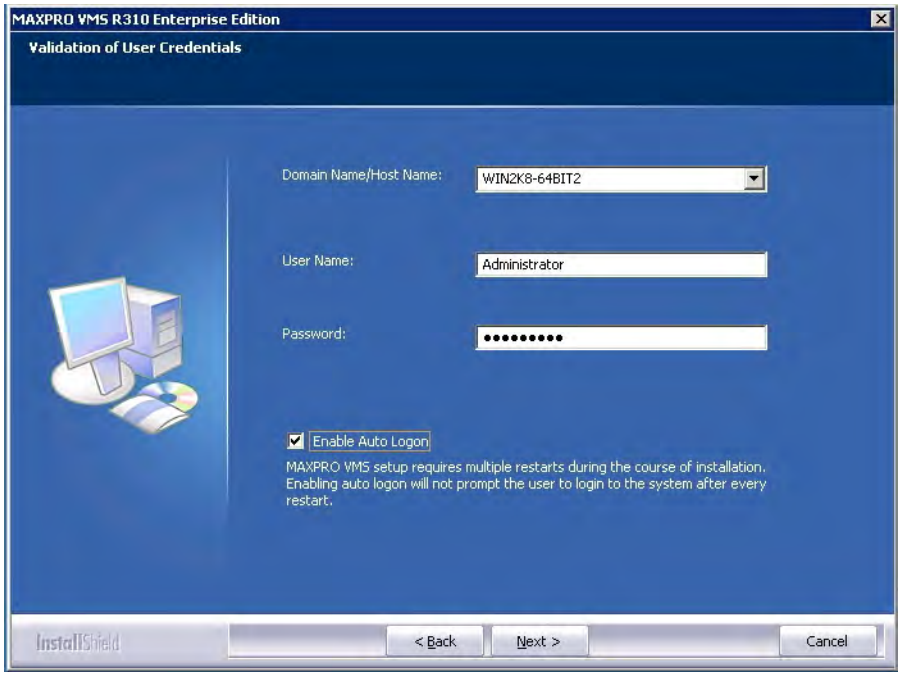
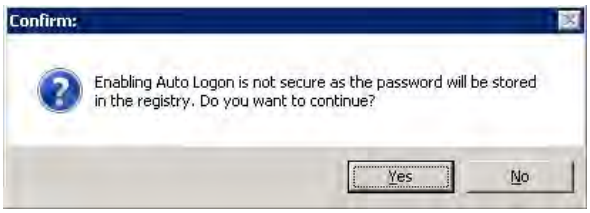

MAXPRO VMS R310 Enterprise Edition
Validation of User Credentials
Domain Name/Host Name:
WIN2K8-64BIT2
User Name:
Administrator
Password:
Enable Auto Logon
MAXPRO VMS setup requires multiple restarts during the course of installation. Enabling auto logon will not prompt the user to login to the system after every restart.
InstallShield
< Back
Next >
Cancel

Figure 6-2 Validation of User Credentials

3. In the **Domain Name/Host Name** list, type the domain name or host name if you know it or select one from the list.
4. In the **User Name** box, type your Windows user name.
5. In the **Password** box, type your Windows password.
6. Select the **Enable Auto Logon** check box if you want the computer to reboot on its own whenever required, during the installation process.

Note You are prompted to reboot multiple times while upgrading to MAXPRO VMS R310, auto log on avoids manual intervention during multiple reboots. A confirmation message is displayed as shown below. Click Yes to continue.



7. Click **Next**. The **Features to be upgraded** dialog box appears.

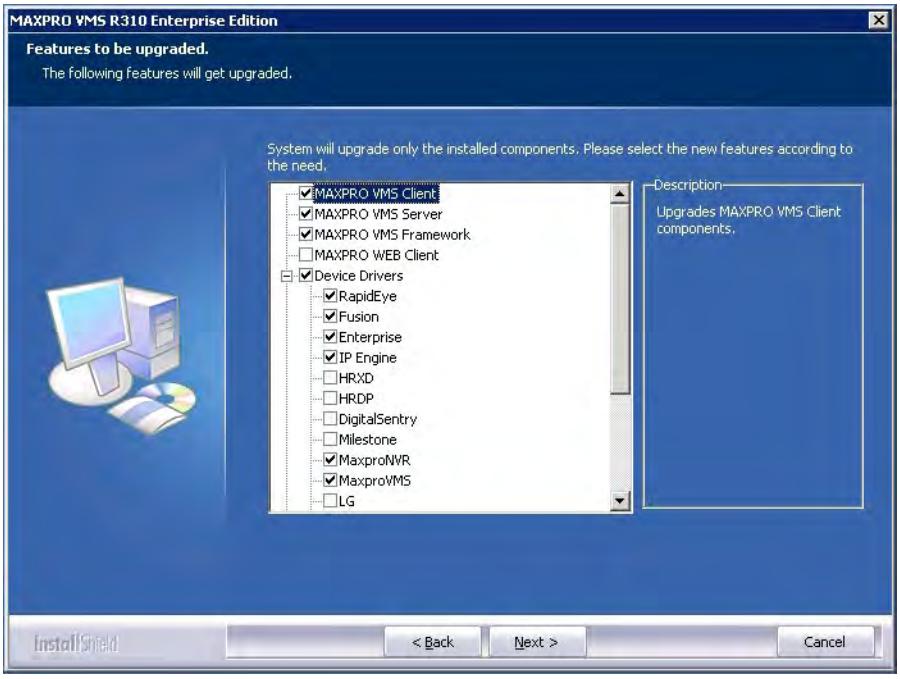


Figure 6-3 Features to be upgraded

8. The check boxes for the features to be upgraded are selected by default. Select the new features you want to install by clicking the respective check boxes.

Note:

- Clear the check boxes for the features that you do not want to install/upgrade.
- While upgrading the recorder driver, the message " Are you sure you want to remove the Kinley Client" appears. Click **OK** to proceed with the recorder 400.3 upgrade installation.

---

9. Click **Next**. The **Choose Cache file location** dialog box appears.

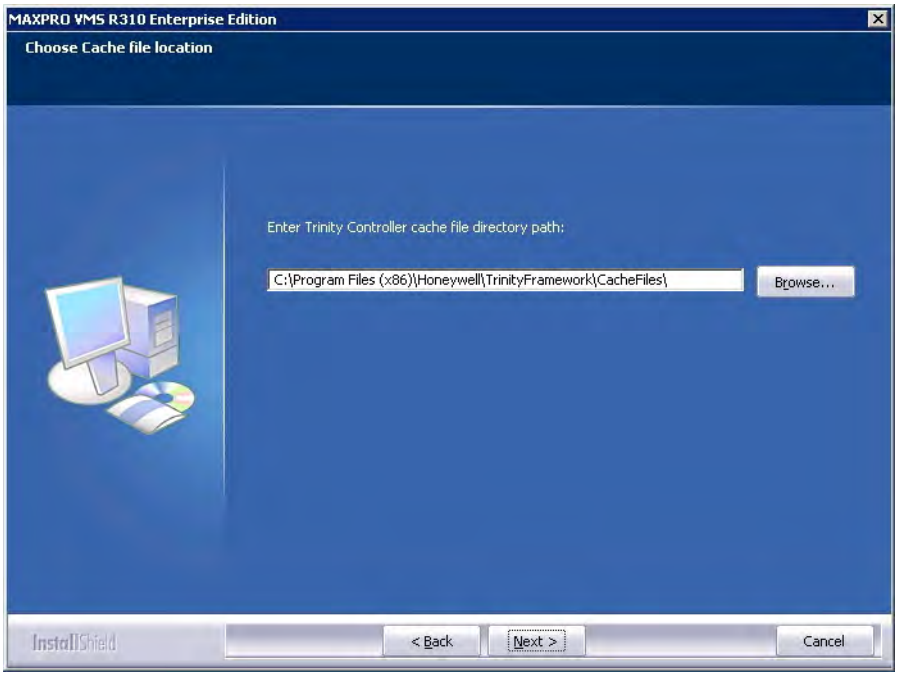


Figure 6-4 Choose Cache File Location

10. Click **Next**. Step 9 is required only if Analytics is selected in the **Features to be upgraded** dialog box.
11. Click **Next**. The **Start Copying Files** dialog box appears.

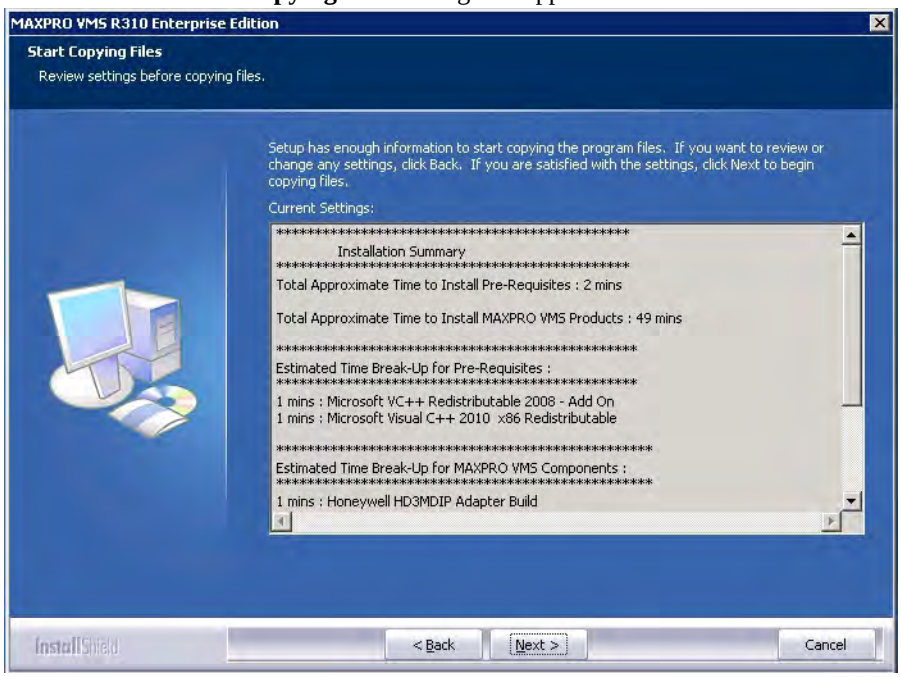

MAXPRO VMS R310 Enterprise Edition
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Installation Summary
Total Approximate Time to Install Pre-Requisites : 2 mins
Total Approximate Time to Install MAXPRO VMS Products : 49 mins
Estimated Time Break-Up for Pre-Requisites :
1 mins : Microsoft VC++ Redistributable 2008 - Add On
1 mins : Microsoft Visual C++ 2010 x86 Redistributable
Estimated Time Break-Up for MAXPRO VMS Components :
1 mins : Honeywell HD3MDIP Adapter Build
InstallShield
< Back
Next >
Cancel

Figure 6-5 Start Copying Files

Note A confirmation message is displayed as shown below. Click Yes to proceed and to install the list of prerequisites.

Confirm:
Setup has detected that listed Pre-Requisites are not installed in your system. Click 'Yes' to proceed and the Pre-Requisites will be automatically installed or Click 'No' to install the Pre-Requisites manually.
Yes
No

12. Click **Next**. The set up status of various components appears. After the components are installed/upgraded successfully, the **Upgrade Complete** dialog box appears.

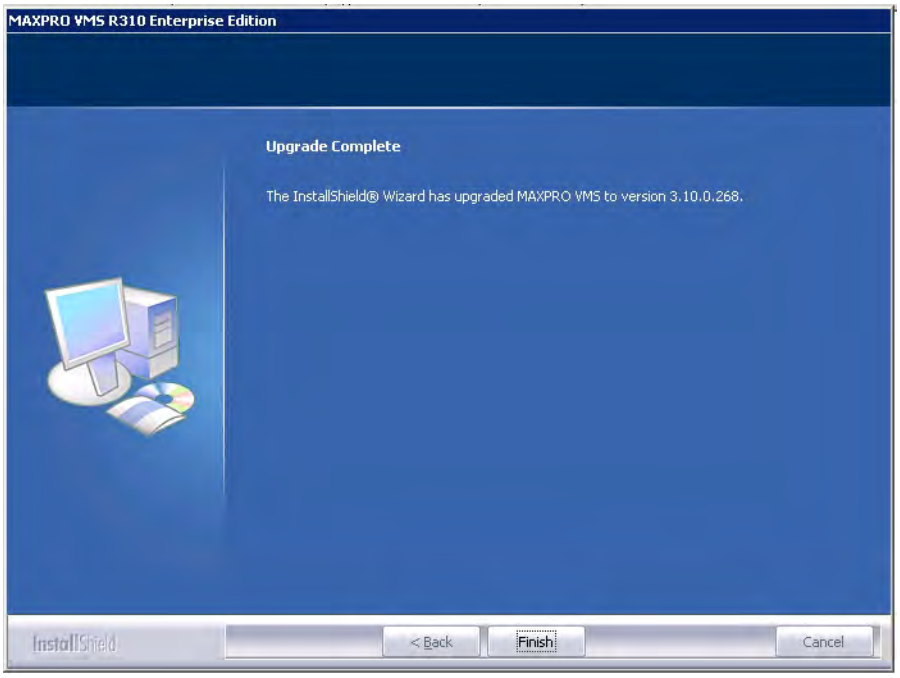


Figure 6-6 Upgrade Complete

13. Click **Finish**. You are prompted to reboot the computer to complete installation.

Figure 6-7 Prompt for Rebooting

14. Click **OK**.

UPGRADING MAXPRO VMS R240 TO MAXPRO VMS R300

Refer to **MAXPRO VMS R300 Commissioning and Installation Guide** to upgrade VMS R240 To MAXPRO VMS R300.

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